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## Where Conservation Can Be Properly Applied

TIME was when a big straw stack was to be seen in every Michigan farmyard. In those days straw was a little valued by-product of the farm and it was not an uncommon sight to see the old straw stacks scattered about the farms where wheat growing was made a specialty in various stages of decay, and not infrequently these old stacks were burned as the easiest method of getting them out of the way. Later, as a market became established for straw it became the too general practice to sell the straw from grain farms at a price which scarcely paid for the cost of baling and delivering it, and far below its actual fertilizing value in the net results secured.

Later, as wheat growing declined as a specialty on the average farm, due in part to the depletion of soil fertility which was a natural result of the poor methods of soil management which were generally followed, straw became a scarce article upon many farms and its very need for bedding the stock and sometimes for feed, forced the adoption of better methods in its care and conservation upon the average Michigan farm. So general has the practice of straw conservation become that upon many, if not a majority, of our better managed farms the straw is now housed as carefully as the hay and used to the best advantage as an absorbent in saving the manure made upon the farm, thus returning a maximum of plant food and vegetable matter to the soil as a means of conserving its fertility.

### Selling Straw from the Farm.

Just what disposition should be made of the straw which is a by-product of grain production on the farm, is a factor in good farm management which is worthy of careful thought. On the farm where live stock production or feeding is made a specialty, or where dairying is an important department of farm production, this will not ordinarily be a perplexing problem as home-grown straw is seldom equal in quantity to the demand for bedding and absorbent material upon such farms. On other farms, where live stock is not made a specialty and

where grain is grown in considerable quantities this may not be the case. At first thought it would seem that there is even more need of returning the straw to the land in such cases, but this is not necessarily true.

While the modern slogan of "Save the Straw" applies with equal force in all cases, its proper disposition is an economical rather than a sentimental proposition. Modern conditions have stimulated the demand for straw in the larger commercial centers and at the same time limited the available

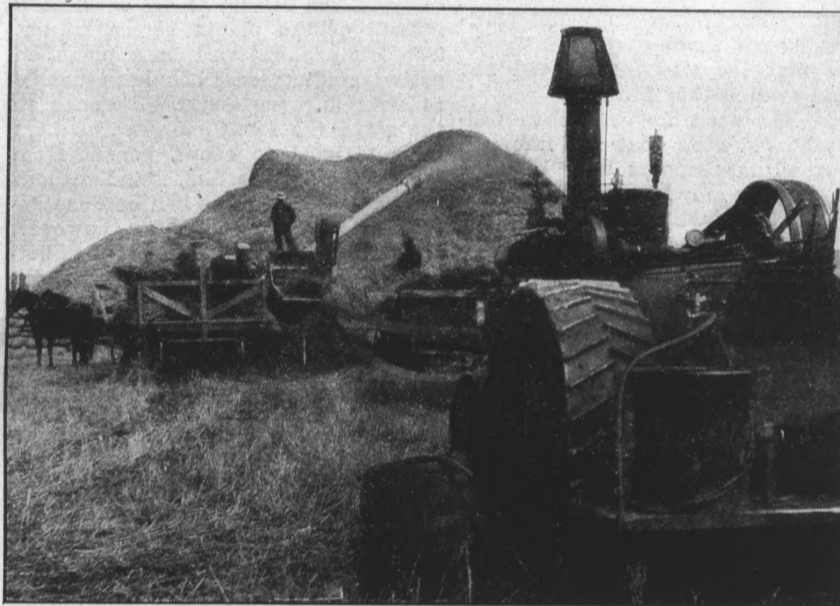
load at the farm with no expense of delivery, and figured that he was getting considerable more than its fertilizing value at this price. But this farmer concluded that at the price for which he could sell his surplus straw it paid to care for it just as well as he does for his hay, and this year he built a large rick in an angle of his barn under which the wheat was stored at harvest time, so that the straw could be conveniently run into the barn when the wheat was threshed. This rick will be useful for other

crops and regularly plows down clover to provide humus and nitrogen and supplements this feeding of the soil by the liberal use of commercial fertilizers. With him it is simply a question of economy and under his conditions economy favors selling the straw. With most farmers economy will dictate the use of the straw upon the farm. Like most other problems of farm management, this problem of the proper disposition of that most valuable by-product of the farm, straw, should be solved from the standpoint of economy after taking into consideration all the factors which properly enter into its correct solution.

### Straw as a Roughage for Live Stock.

The question as to how far straw can profitably be used as a roughage for live stock is one which sometimes requires a nice degree of judgment. It is a reasonably safe assertion that where live stock feeding is carried on the oat straw can be economically used for this purpose, especially when fed in connection with ensilage. The judgment of successful stock feeders in this respect is substantiated by the results attained at several experiment stations where careful tests have been made. While gains are generally somewhat less with oat straw used as roughage with ensilage in comparison with clover hay they are generally more economical in the fattening of both cattle and sheep, and it is quite probable that oat straw can be used to a more limited extent in the ration of the dairy cow with equal profit. It is also a valuable roughage for horses when properly fed in suitable combinations with other feeds in the ration. That good clean oat straw is too valuable a roughage for live stock to be used for other purposes, unless in exceptional cases, is an assertion which is scarcely open to argument, and it naturally follows that it is too valuable to waste by exposure to the weather unless this course is unavoidable.

Wheat straw is so much less valuable as a roughage for live stock that it is a doubtful economy to use it at all for that purpose under ordinary



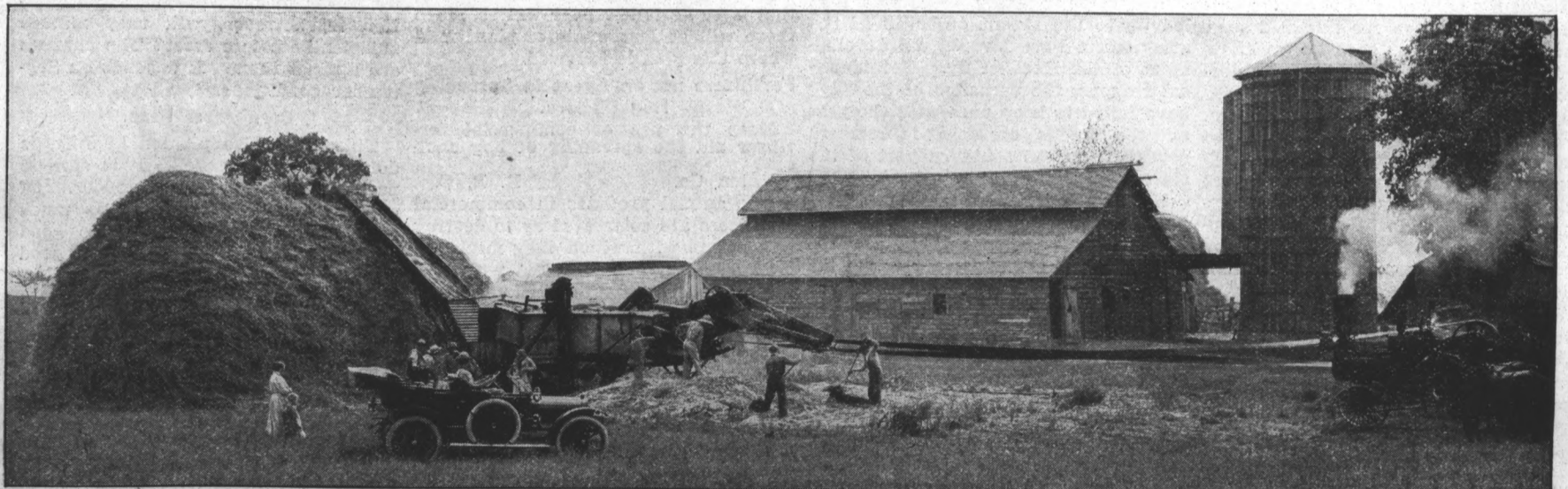
A Lack of Conservation Sometimes Seen in Caring for Straw on the Farm.

supply to an extent which has in many cases brought the price of straw up to a point which exceeds its fertilizing value, in which case it will often be good economy to sell the straw from the farm and grow green manure crops to supply plant food and humus to the soil. In many localities straw is such a scarce article upon many farms that farmers will pay a still higher price for it than it is worth on the open market for shipping purposes and draw it themselves.

One farmer of the writer's acquaintance sold the bulk of his last year's product of straw at five dollars per

storage purposes and will probably nearly or quite pay its cost in a single season through the better conservation of the straw and the greater security of the grain by the protection of both from the weather.

It is always a mistake to sell the straw from the farm unless the land is as well or better fed in some other manner than it would be by the return of the straw. But that the farmer above mentioned is not making this all too common mistake is well attested by the fact that he secured a yield of over 40 bushels of wheat per acre this year. He uses a short rotation of



The Well Built Straw Stack is Far More Profitable, But the Saving in Straw will Pay Good Interest on the Investment Required for Barn Storage.

conditions and rye straw is still less valuable for this purpose, yet there are times when even rye straw can and must be used for roughage. At the time of the general hay failure back in the early nineties, the writer used rye straw as the principal roughage for his horses, and wheat straw for the cattle. While this can be done by feeding liberally of grain, with some succulent feed, yet it is not desirable and under normal conditions is not profitable. Generally speaking it is best to plan on feeding the oat straw and using the wheat and rye straw as an absorbent to aid in the conservation of the manure, and return the undesirable barley straw to the land by the easiest route, unless there is a surplus of straw and it is thought more profitable to sell it and feed the soil in some other way.

#### The Fertilizing Value of Straw.

In determining this point it is well to consider the value of the straw as a fertilizer. According to Henry's tables the fertilizing constituents in one ton of wheat or rye straw would be worth approximately \$2.50 at prevailing prices for chemical plant food. In its ultimate effect on soil fertility the straw would have a greater value than this on account of the vegetable matter which it would add to the soil, but for immediate results in growing crops it would have a smaller value because it would become available as plant food more slowly, while as a stable absorbent, where it can be used for that purpose, it would have a far greater value because it would aid greatly in conserving the plant food in the animal manure.

In any event, it will pay to house the useful straw, whatever its final disposition. The saving will pay good interest on the investment required to provide the necessary storage. And until such storage can be provided it will pay to stack it carefully, preferably outside the yard where the stock cannot waste it, and certainly where the sheep cannot run to it and fill their fleeces with chaff. While straw may legitimately be considered as a by-product it is a valuable one and should be conserved accordingly.

## Grasshopper Bait.

GRASSHOPPERS are very injurious insects when once they become abundant. Some parts of Michigan are seldom troubled with them, while other parts are harassed nearly every year, and it is with some difficulty that farmers are able to keep these insects from eating up their crops, especially if they are grown in a field next to an old pasture. The grasshoppers are always the worst near the lane or near an old pasture field which has not been plowed up for a number of years. In some parts of Michigan where farms have been abandoned, the grasshoppers are always the worst in the direction of these farms. A farmer having a piece of oats next to one of these abandoned places is almost sure to have a strip of his oats next to the farm eaten off. The reason for this will soon become apparent as soon as we know the life history of this "insecto desperado."

#### Fall Plowing Controls Grasshoppers.

It is exceedingly interesting to watch the grasshopper in his development from the egg to the adult, but this should be done with the grasshopper in a cage and not out in the open. We have all noticed that one sex of the grasshoppers has two small horn-like appendages at the rear of the abdomen. These horns are a trifle crooked (curved upward) and the individuals which possess them are females. The appendages are called ovipositors: Ova meaning egg and positor meaning placer. These are the egg placers. After the female has become full grown and the eggs have developed, they are deposited in the soil, the cavity being cured with a

frothy, water-tight mucus and into this pod, 20 or 30 eggs are laid. Then the pod is sealed with a frothy mass of mucus. The eggs lie dormant in the ground until the next May or June.

These pods are never laid more than a half-inch deep and the favorite nesting place is in a lane, an old slashing, or some other place where the ground is seldom plowed.

The eggs lie dormant over winter and in May or June, the warm weather causes the eggs to hatch and the young creatures work their way up through the frothy plug which was put into the hole after the pod was sealed. The young grasshopper looks like the adult, only he is much smaller and usually is of a greenish color. He starts eating and when he gets so full that the tough old skin is too small, he hops into the shade, sheds his old skin and a new one, more his fit, takes its place. He lies in the shade for a couple of hours to dry off and then goes out to eat grass or crops, whichever the case may be. This process goes on until the grasshopper has attained maturity.

#### "Bait the Grasshopper."

In the same way that the country took up the slogans, "Swat the Fly," and "Ax the Rooster," farmers living in grasshopper infested country must either do their plowing in the fall or "Bait the Grasshopper."

One can see from the life history of this insect—wintering over as it does in the egg stage—that fall plowing will turn these egg pods so far under that the tiny insects can not get out even if they hatch.

If it has been impossible to fall-plow the old sods that are infested, then the grasshoppers may be kept from growing crops by baiting. There are two baits which are commonly used; the bran and Criddle mixtures. The bran mixture is made by stirring two pounds of Paris green or arsenate of lead into 100 pounds of bran. A little molasses is stirred in and enough water added so that the mass will just stick together when taken up with a spoon. A little of this mixture may be thrown out from a moving wagon, along where the insects are working. Do not use this bait where stock or wild animals will get it.

Criddle mixture is made by mixing Paris green, one pound; salt, two pounds, and fresh horse manure, 100 pounds, or five three-gallon pailfuls. The grasshoppers like the salt and will devour the mixture ravenously. It is distributed in the same manner as the bran mixture. The Criddle mixture will not be eaten by stock while one must not put out the bran mixture where either domesticated or wild animals can get at it, for they will eat it: death soon follows.

The menace to the farmer in some sections of Michigan—the grasshopper—may be very readily controlled by fall-plowing or baiting.

Ingham Co. I. J. MATHEWS.

#### THE HESSIAN-FLY SITUATION.

The same weather conditions that led up to the recent outbreak of the army worm have favored the development of the Hessian fly. For identical reasons, the parasites of the "fly" have failed to keep pace with the pest and the "fly" is increasing in numbers especially in the southern part of the state.

Now when the wise man sees trouble in the distance, he takes all the precautions possible and then takes what chances are necessary to get his crop. In the long run late sowing of fall wheat escapes with a minimum of injury during "fly" years, because the late sown wheat is more likely to come up after the flies that lay the eggs are through working, than that which is sown earlier. If we could only tell beforehand just how long the flies are going to stay this fall we could set the date with certainty. Lacking this information, the best we

can do is to decide on an average date which is as late as we dare sow and yet which has been early enough in the past to get a stand which will come through the winter. September 20 has proven as good a date as any in the past. Of course, it is impossible to guarantee a crop under any conditions, but late sowing seems advisable this year, especially in the lower third of the state.

R. H. PETTIT,  
Entomologist Michigan Exp. Sta.

#### FARM NOTES.

##### Clipping Alfalfa.

I have a seven-acre field of alfalfa sown about June 15. I got an excellent catch and it has made a good growth, some of it being about ten inches high. What would you advise doing with it to get rid of weeds and grass? Would it be all right to cut for hay, or would you cut and leave for mulch? When would you cut it? Hillsdale Co. C. L. B.

Where a good stand of alfalfa has been secured from spring seeding and same has made a good growth, it would be all right to cut same for hay or clip and leave on the ground as soil conditions might indicate. The alfalfa should be cut, preferably when the new buds are starting at the crowns of the plants. If there are many weeds it would be preferable to cut the alfalfa, and many authorities contend that it is better to cut same, provided it can be done sufficiently early in the season to insure a good growth of the plants before winter. The writer has tried both plans on spring seeding, and has been unable to note any particular difference in the stand the following year. Others have claimed to see a benefit from letting the new seeding stand without cutting. Where same can be done before the first of September, however, it is the writer's opinion that it is better policy to cut the alfalfa, especially if there are many weeds in the stand.

##### Fall vs. Spring Plowing for Alfalfa.

I have a piece of land to sow to alfalfa but cannot get it seeded before September and think that too late for good stand before winter. Will I get as good results if I plow and top-dress land this fall and cultivate well before sowing in spring, or should I wait till spring to plow? Eaton Co. S. A. F.

The present condition of this land would be a factor for consideration in determining whether to plow it this fall or next spring. If it is sod ground, fall plowing would perhaps be best, but if the alfalfa is to be sown in the spring, it would be an easier proposition to fit the seed bed if it is plowed this fall. If it is top-dressed with stable manure, however, it should be cultivated or harrowed several times before sowing, which would make it an easy matter to fit the seed bed properly whether plowed in the spring or fall. If it were the writer's case, he would prefer to apply the stable manure during the winter if it is sod ground, then plow same down in the spring as early as possible, as it is always better economy to apply manure to sod ground as a top-dressing to the growing crop than on land that is to lie fallow over winter, since there will be less waste of plant food where this plan is followed.

##### Fertilizers not an Agent in Spreading Hog Cholera.

Does the use of commercial fertilizer aid the spreading of hog cholera? Eaton Co. R. B. C.

The animal products in commercial fertilizers are so treated as to destroy any germs with which they might be contaminated, being cooked with live steam under pressure until even the bones are softened and disintegrated. Thus the spread of hog cholera by this means would be an impossibility unless the material was in some manner infected after treatment, and we have never seen any suggestion by the scientists who have had this problem under investigation, of the possibility of spreading the disease from such a source.

#### LILLIE FARMSTEAD NOTES.

The severe drouth was broken on August 10 by a splendid rain. It came just right to all be absorbed by the thirsty crops and soil. The ground, however, was so dry that we will need more in a few days. This rain has come to help corn just in the nick of time. Last year the rains were so late that they did but little good to the growing crops. They were past help. Take everything into consideration, it is proving a better season than last year.

##### Second Crop Alfalfa.

The hot, dry weather affected the new seeding of alfalfa. It did not grow as tall as the old field, and the plants began to turn yellow while the plants in the old field remained green up to the time of cutting. The old field was harvested in splendid condition; not a particle of rain to wet it and we raked and cocked it in time to save the leaves. This crop is stored in the loft above the hog house for the hogs this winter. We have already top-dressed the old field with 400 pounds of phosphate and potash fertilizer, and intend to apply the same amount to the new fields at once, besides we will also top-dress these fields with stable manure. Even with the best treatment I know how to give young fields of alfalfa will not do as well as older fields. It seems to take two or three years to get the plants well established and doing their best. If this is not my fault, but due to the character of the plant, then this very characteristic will interfere with the idea of using alfalfa in a crop rotation. If this is the nature of the plant it can never entirely take the place of common red clover in our agriculture. I have not fully determined in my own mind yet just how large an acreage of alfalfa I will find advisable on my farm, but I am thinking 25 or 30 acres is all I can handle to the best advantage.

##### Late Oats.

Late oats are a very poor crop on our farm. There was a good growth of straw but they did not fill properly and are light and chaffy. Every year for a long time when weather conditions have prevented us from getting all the oat crop sown early, I have resolved that next time I will not sow the oats at all, but will plant to corn or beans or some other crop. Then when I figure that we will have all the tillage crops we can properly attend to, I take the risk and put the oats in when I know it is out of season. Sometimes, however, weather conditions are such that late sown oats are a good crop. Usually, however, they are unprofitable, and one might better let the land go barren than grow an unprofitable crop, for he simply works for nothing and boards himself and teams, too.

##### Late Planted Lima Beans.

This crop, replanted in July, is doing fine, the hot dry weather seems to be just what they need. They have a long tap root that rivals alfalfa in its power to get moisture. The question is, however, will they mature sufficiently before frost? The chances are against them. It depends on September conditions.

##### Corn After Peas.

This crop, also planted in July, is doing remarkably well. It is sure to produce a fair crop of fodder. Of course, it may not mature as much as it ought, but it will make good stock food and there will be a good growth, except on some of the clay, where it was so dry that the plants could not get a start.

##### Buckwheat After Peas.

This crop does not look very promising now. It is very spotted. Many places it did not come up well. Probably I shall do no more than to plow it down, but I think it will be worth the seed and labor for this purpose.

COLON C. LILLIE.

## THE AUTHOR'S DEFENSE OF "THE COST OF A CROP."

I conclude it is time I should say something to the critics of my April 25 article on "The Cost of a Crop." Before talking up the criticisms that have been offered, I shall state that the article in question has nothing to do with my personal experience as a potato grower. The article was intended to represent average experiences of average potato growers. That my average yield per acre has been better than 200 bushels for the past five years, is not the question under discussion. The question is, what is the average cost of producing an acre of potatoes? We know the average yield in Michigan has been less than 100 bushels per acre and the average price not far from 40 cents per bushel.

We shall never get anywhere by lumping the whole operation into one item, making an off-hand guess, or jumping at a conclusion. Each item that enters into the cost of producing the crop must be analyzed separately, and all the items of cost must be included in the total. I have never yet seen a table of cost of producing a crop that included all the items that should have been considered.

## A Common Weakness.

That farmers select the year in which they have experienced their largest yield or highest price and hold that up as a fair sample of their normal experience, and brag about it, is one of their weaknesses. They do not stop to consider that they are creating an erroneous impression.

Mr. Neilsen, in the May 23 issue of The Farmer is a fair sample of this practice. He holds up his 240 bushel crop and assures us that he is not donating; that he is making great money. Incidentally he states that another year this 10 acre field yielded him only \$60, and another year only \$20. Now, why don't he put these three years together and strike the average? Why not average 10 years' results? Any farmer who does this will not brag of big yield or big prices. If he does, he is an exception.

Mr. Peck, in The Farmer of June 20, gives the figures on his 1912 crop. Why didn't he take the 1911 crop or 1913? Because, in 1912 he received 95 cents per bushel, and the other years not half that amount.

## It is the Big Crop that Gets Into Print.

It is only in exceptional cases that we read the results of a poor or average crop. It is always the account of the exceptionally large crop that gets into print, and these accounts are befogging and misleading when we desire to get at average results.

Mr. Arnold in The Farmer of June 6, says he has dug and picked up 500 bushels per day with the aid of five men one team and digger. He is trying to show that the charge of Mr. Hedrick of \$30 for harvesting three acres is too high. Please note that the charge of Mr. Hedrick is \$10 per acre. Now, every man who has ever run a potato digger knows that Mr. Arnold must have an exceptional team to dig two and one-half or three acres of potatoes in a day. The average grower who uses a digger would have to charge for four horses instead of two, and then Mr. Arnold leaves out of the account another team, two men and a wagon, to haul the ten 50-bushel loads of potatoes from the field to storage. This runs his cost per acre to \$7 to \$9, which is not much below Mr. Hedrick.

Mr. Cook does not brag so strongly about his yield or his ability to work as about his potato machinery. He has \$345 worth and says it enables him to cut my charges so much that he "refrains from giving his figures." Says he can starve the man who grows potatoes without such tools. He has a seed cutter, planter, sprayer and digger, and his cut in producing cost must be in these particular items. My charge was 75 cents for cutting

seed, \$2 for planting, \$3.25 for spray and \$6 for harvesting. Total, \$12. I have become convinced that my harvesting charge is too low by \$2 per acre, which added to the above, makes the total for these four items \$14.

## Easier, Rather than Cheaper.

Now, I defy Mr. Cook to materially decrease these figures. His machinery merely takes part of the labor off the man and places it on the horse. But there is much that neither machine or horse can do. The human hand and back cannot be eliminated from potato growing any more than in harvesting strawberries or cucumbers. The machine and horse enables one to handle more acres, and do more in the same length of time. But there is a costly crew in connection, and the total cost is not materially lessened from that of the small grower who does all by hand. Plenty of my neighbors dig an acre in a day and a half, which means a cost of \$3. A man, four horses and machine will dig this acre in one-third of a day at a cost of \$2.25. It costs two cents per bushel to pick behind the digger, and one and a half cents when dug by hand, the horses and machine saving 25 cents per acre in digging and picking up 200 bushels, and the very hard work when done by hand.

A man plants one and a quarter acres per day by hand, cost \$1.60 per acre. A man, team and planter plants on an average, four acres per day at a cost of \$1.25 per acre. It would be interesting if Mr. C. would give us his exact figures on these four items. I spray five acres for bugs by hand, with an \$8 dust rig, in four hours. Mr. Cook, a team, an \$80 sprayer, covers this area in two and a half hours. My cost, 16 cents per acre, his, 20 cents.

Mr. Cook complains that my charge of \$2 per acre for use of tools is too low. Says he would have to "materially enlarge" this charge. If he grows 25 acres per year (as he should do with such tools) then his acre charge for use of tools (which he figures at \$55.20 per year), would be \$2.20. If, however, he works three acres, then his charge would be \$18.40. That he must "materially enlarge" the charge is pretty fair evidence that he does not grow many acres.

Now, Mr. Cook, (begging your pardon), it don't count much to tell us you are producing for so much less than that you "refrain to give your figures." Your figures are just what we want. If you can produce so much more cheaply than the rest of us, we want to be let into the secret. Give it to us item by item.

Mr. Arnold, it don't add any light to the question under discussion to tell Mr. Hedrick and myself that we are "not practical potato growers," and take a running jump at the proposition and tell us you produce for \$25 per acre. Too many farmers have talked just as you talk. Give us your cost table, item by item.

Mr. Nielsen, you gave us one item of cost of your crop, e. g., seven and one-half loads of manure per acre. If ton loads, it amounts to \$23.40 worth of plant food elements per acre, two-thirds of which should be charged to the potato crop, or \$15.60.

You are all like several of my neighbors who have lately told me they thought, when they read my cost table last April, that I was crazy, but since they have studied the matter more carefully they have decided I am not so badly off as they feared I was.

## Itemized Costs Are Valuable.

The articles of Mr. Hedrick of Pennsylvania, and Mr. Peck, of Ohio, are the most valuable thus far contributed on this question, because they contain the itemized experience of these men. While both fail to include all the items of cost and the planting and digging items of Mr. Hedrick as suggested by Mr. Arnold may seem too high, and the harvesting and plant food charges of Mr. Peck as unreasonably too low, still they have given us

very much valuable food for thought.

I am at a loss to account for Mr. Peck's low cost of harvesting. It is very difficult to formulate a criticism in this case, for Mr. P. is a bookkeeper, if not an expert accountant and he has the figures to show for it and "figures don't lie." This is what his "expense sheet" shows: Eight acres of potatoes dug, picked up, and stored by one man in 62 hours, and one horse used 34 hours, and some kind of machine used 17 hours, at a cost all told, of \$1.80 per acre. Mr. Peck must have slipped a cog in his bookkeeping, or mislaid some of his daily report sheets. No one man ever did what this expense sheet says he did, and never will. It is an impossibility.

Mr. Peck's cost keeping system may be all right. I do not care to criticize that. In fact, I do not see that the fault of this harvesting item is in any way the fault of the system. I am not so much interested in the system of keeping accounts as I am in the account being an honest record of the facts. We want these cost tables to show not only every item of cost that enters into the production, but we want all of every item. I have just read Mr. Peck's reply to Mr. Finn, and I confess I do not see a good reason for his not charging his salary against his farm operations, except that by so doing it would reduce the profit showing. Mr. Peck is the "head push" of the farm, directing the movements of manager and men, and doing the work that someone would have to be paid big wages to do if Mr. Peck did not do it.

## A Comparison of Costs.

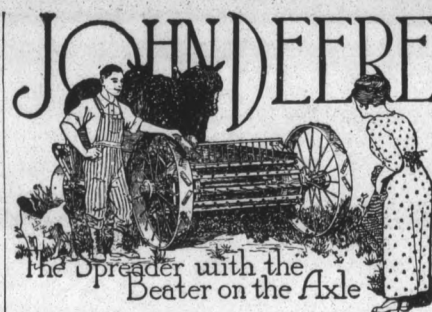
That farmer readers may compare, I have reduced the figures of Mr. Hedrick and Mr. Peck to cost per acre, as shown in the following table:

Cost of Growing and Marketing an Acre of Potatoes.			
	Crum.	Hedrick.	Peck
Plowing .....	\$ 2.00	\$ 2.33	\$2.25
Fitting .....	2.25	1.44	1.22
Selecting seed....	.75	....	....
Seed .....	10.00	2.66	6.54
Treating seed and material .....	.75	....	.95
Cutting seed....	.75	....	.63
Planting .....	2.00	5.83	1.18
Spraying and materials .....	3.25	....	....
Cultivating .....	3.25	4.13	3.32
Harvesting .....	8.00	10.00	1.80
Storing .....	4.00	....	....
Sorting and Hauling .....	8.00	13.28	3.09
Plant food.....	15.00	11.00	1.89
Tools, use of....	2.00	....	1.71
Rent or interest..	7.00	....	....
Taxes .....	.50	....	....
Miscellaneous ...	....	....	2.54
Total .....	\$69.50	\$50.67	\$27.12

Note that I have added \$2 to the former table for harvesting, and 50 cents for taxes; that my charge was for selected seed, Hedrick's for small cull seed; that Hedrick hauled eight miles and Peck, evidently a short distance, as his charge shows a goodly number of potatoes handled in a short space of time; that Hedrick applied 600 pounds of fertilizer per acre and Peck 168 pounds; that Peck has not charged for some \$10 worth of plant food removed from his land, storage, spraying, and about \$6 for harvesting, all of which would bring his total up to about \$50 per acre.

Mr. Editor, I feel that we have made a good start on this cost of crop matter. Some of my neighbors are keeping account of their potato growing expenses for the first time and are being surprised at what they are getting into their crop. Some items in my cost table may be reduced somewhat, but the fact will be hammered home to the minds of the potato growers that it is costing them very much more than they have been figuring to produce this crop. I wrote the April article, expecting to be criticized more harshly than I have been, especially on the plant food item, which no one has mentioned. I do not want you to get the impression that my figures are unchangeable. If it can be shown that I am wrong in any item, I shall be glad to change it.

Montcalm Co. C. W. CRUM.



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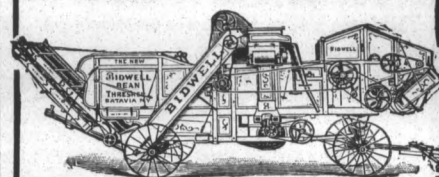
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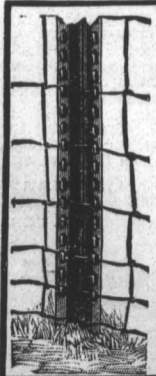


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## Live Stock.

### ECONOMICAL CATTLE FEEDING.

The cattle feeding business has changed greatly during recent years. Formerly, matured steers were fed in large numbers upon commercial feeds at yards near granaries or mills, or on large farms where only the roughage was grown, and the cattle were kept on full feed for six months or longer. This method became too expensive, so feeding is now conducted upon farms as a means of marketing farm products by converting them into beef, while the manure produced is utilized as a by-product for maintaining fertility. At the present time in the corn belt, cattle are usually fed in small herds of one to four carloads, and are marketed at 18 months to three years of age.

There have been a number of factors which have united in causing these changes, is the statement made in Farmers' Bulletin 588, just issued by the Department of Agriculture, a bulletin whose purpose it is to promote cattle feeding on moderate-sized farms. There has been a gradual increase in the value of farm products, continues the statement, and the cost of farming has also increased. In the seven leading cattle-feeding states the prices of various feeds on December 1 of the years 1899 to 1901 and 1909 to 1911, have been taken and it was found that during this ten-year period the price of corn had advanced 29 per cent and hay 45 per cent, while such supplemental concentrates as linseed oil meal and cottonseed meal had increased in about the same proportion. The price of labor has advanced 31 per cent, and feeder steers have advanced 36 per cent since 1904. Lastly, the value of land has increased 103 per cent during the decade 1900 to 1910. This increase in land value makes a much larger capitalization upon which interest must be charged.

All of these items taken together make a heavy increase in the cost of feeding, and although the prices of finished cattle have increased greatly they have not kept pace with the increased expenses. Thus, comparing the three-year period from 1899 to 1901, with that of 1900 to 1911, native steers on the Chicago market have advanced about 24 per cent. Again, as the price of feeders has advanced faster than that of fat cattle, the margin of profit is smaller than formerly. These conditions have caused many feeders either to curtail their feeding operations greatly, or else stop feeding entirely.

It is difficult to estimate accurately the cost of raising cattle, as it varies greatly on different farms. Considerable data at hand show that for a calf six months of age, weighing 450 lbs., the cost of raising varies from \$17 to \$23 in the west, and from \$20 to \$28 in the east. The freight rates and other shipping charges from the west will practically offset this difference, so that the calves will cost about the same in eastern feed lots, whether raised locally or shipped from the corn belt states. At six cents a pound these calves would ordinarily bring about \$27 and would usually insure the producer a fair profit.

To determine as accurately as possible the cost of feeding farm animals cost accounting records were kept for two years on 24 Iowa farms. During the feeding year beginning with the fall of 1909, the average profit on 961 cattle fed in 22 bunches was \$2.05 per head, in addition to the profits on the hogs following them. The 1,504 hogs following these steers were given extra grain, and they yielded a profit of \$6.67 per hog, thus giving a profit of \$12.49 per steer when the pork was credited to the steers. The

following year was not so satisfactory and the net profit was only \$4.04 per steer.

Any system of cattle feeding must take into account a plan of having hogs follow the fattening cattle. In fact, the best authorities believe that with the present narrow margin for fat cattle, it is inadvisable to feed without hogs.

### THE FARM BARNYARD.

It is more or less a deplorable fact that many barnyards at certain seasons of the year are practically impassable. The condition of many barnyards and feed lots during the muddy weather of early spring is such that it used to be said a man should not feed cattle unless he could wade in mud "knee deep."

In many cases the condition of the yards could be greatly improved by a little provision for better drainage, especially in localities where the surface of the land is such that the barnyard and feed lots cannot be located on a hillside with ample surface drainage.

The successful drainage of a barnyard must receive consideration other than that involved in the practice of land drainage. This is due primarily to the fact that the continued tramping of the stock over the surface has a puddling action and tends to make the surface waterproof. This action is more noticeable with some soils than with others; in this connection it should be stated that a gravelly soil makes by far the best location for a barnyard, but, of course, this cannot be obtained often. However, the selection of the barnyard should always be given attention by the stockman. He should be careful to place the yards and lots where the best surface drainage may be obtained. Often much can be accomplished by a little grading and stockmen and farmers should make use of the proper changes in the surface and grade to produce the best results. I have observed many yards which could be greatly improved with little work and at little cost. The surface should not only shed the water to the proper places, where it may be taken into tile catch basins or onto the soil, which will permit the water to filter through to the tile underneath, but should also prevent any flow of surface water onto the barnyard. Often the latter point is one which is neglected, yet is so easily provided against. There is no need, whatever, in any case, of allowing surface water to flow into the yards from the outside.

The thorough drainage of the adjoining land has a marked effect upon the condition of the barnyard. If the barnyard is not too big it cannot get into a very bad condition if the surrounding land is thoroughly drained. Although the surface of the soil may become puddled it is hardly possible that it will become perfectly waterproof and there will be some filtration through. If the soil is inclined to be open, one need not hesitate to put in tile lines through the lot proper for such lines will give good results.

The water from the barns and other buildings should not be allowed to flow onto the surface of the yards, but it should be led directly into the tile lines. The buildings, therefore, must be provided with eave spouts.

There are those who maintain that thorough drainage of a barnyard permits a loss of fertility in the manure washed away. This objection is not well founded, however. It is reasonable that with a good, firm and dry barnyard, less manure will be lost than where the mud is knee deep.

Indiana.

W. F. PURDUE.

## Dairy.

CONDUCTED BY COLON C. LILLIE.

### WHAT TO FEED WITH OATS FOR GRAIN RATION ON PASTURE.

I have two cows, one a Jersey, the other a Holstein, two and three years old. What would be a good balanced ration to feed them to produce milk, using ground oats? Or what other good ration can I feed, and how?

Lapeer Co.

B. E. G.

Where the cows get the most of their roughage from succulent pasture I don't think there is any better ration than corn and oats ground together equal parts. In fact, there is a mighty good ration for cows at any time of the year. There is nothing better. For winter feeding, where you have corn silage, especially if you have timothy hay, the ration would lack a little in protein, and then it would pay to feed a little cottonseed meal or oil meal, but on pasture you have a larger per cent of protein and I am sure that corn and oats ground together will fill the bill. I would suggest that if the cows have pretty good pasture you feed them a half pound of this feed for every pound of butter-fat which they produce in a week. As the pasture begins to get bare, as it undoubtedly will in August, you can increase this ration. If you have good cows you can afford to feed them, if the pasture is short, a full winter ration of grain, which would be a pound of the grain for every pound of butter-fat they produce in a week. The feed for a Holstein would not differ from the feed for a Jersey. They ought to be fed in proportion to what they do, and if you give them food in proportion to the butter-fat they produce in a week they will be properly nourished.

### ICE CREAM AN IMPORTANT FACTOR.

Many people do not realize what an important factor the modern demand for ice cream is in helping to sustain prices of dairy products. Enormous quantities of butter-fat are now made into ice cream. This would have to be made into butter or cheese and it would make a surplus of butter and cheese and would knock the bottom out of prices. Not only are enormous quantities of butter-fat used in the manufacture of ice cream, but this occurs at the season of the year when there is liable to be a surplus of dairy products. The great consumption of ice cream is during the flush of milk production in spring and summer just when needed. The price of storage butter would go away down if, for any reason, the consumption of ice cream should cease. It is to the dairyman's interest to see to it that the law compels the manufacturer to put a good per cent of butter-fat in ice cream. We farmers want the consumer to have good rich ice cream and the more we can coax him to eat the better.

### HOW TO BUILD LATH AND PLASTERED SILO.

Will you please describe how to build a lath and plastered silo made of green elm, with the siding running around inside and out? Also, how heavy to cut the frame or joists. Could I use green elm inside to plaster on. If so, what size should the strips be cut? How close together should the uprights be to make it strong enough? Would this make a good silo?

Saginaw Co.

L. H. C.

To build a lath and plastered silo dig a circular trench of the size you want the silo for your foundation. Dig this down at least two feet. Get it down so that you will have a good and firm foundation. Fill this trench up with grout, you can use a number of cobblestones if you want to, it

will save so much gravel. Build it up above the ground six or eight inches. Have the surface of the foundation wall when it is completed, slant to the outside so that the water won't run in and rot the sill.

On this foundation wall put a circular sill made out of common lumber, and have it double thickness so you can lap and mismatch the joints. Then nail common studding 16 inches apart on this circular sill. Set the studding so that when the silo is lathed on the inside the lath will come just flush with your foundation wall, so that when you plaster you can plaster over the inner surface of the foundation wall and have it smooth with the wall above.

The studding for the doorway should be set a little beveled so that that openings for the doors will be wider on the inside of the silo than on the outside. These are set on a bevel so the doors can be put in from the inside and will not push out. Put your silo up as high as you wish to build and put on a circular plate. Lath it on the inside, using any kind of lath. You can get the patent board lath, which is matched lumber with grooves cut in it, or you can lath it with common plastering lath. You can get elm lumber sawed that will bend around and lath it on the inside as good as with anything else. These should be nailed onto the silo, leav-



Device for Prevention of Kicking.

ing spaces so that the mortar will clinch.

Don't have a continuous doorway. Lath it on the inside over each doorway. Reinforce the silo by wrapping a No. 8 galvanized fence wire around the silo between each doorway. This will make it of sufficient strength so that it will not need any hoops. Clapboard the outside and about three feet between each doorway, and make your doors about three feet. Plaster the silo on the inside with good rich cement mortar and you will have as good a silo as anyone.

### A DEVICE TO PREVENT COW KICKING.

A simple but effective device to prevent cows kicking, while milking, is made of a chain 26 inches long, and two hooks made of two-inch strap iron. The hooks are made of flat strap iron and shaped so that they will fit the leg of the cow just above the hock with the gap of the hook toward the inside. The hook which fits the left leg of the cow is fastened to the end of the chain. The chain is brought around to the front of the legs and is passed through the loop on the hook on the right leg. This holds the legs secure and without discomfort to the cow. This device can easily be made by a blacksmith. Kentucky. H. APPEL.



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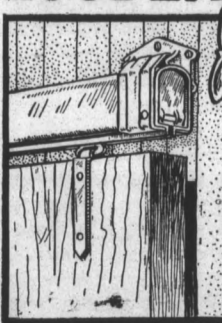
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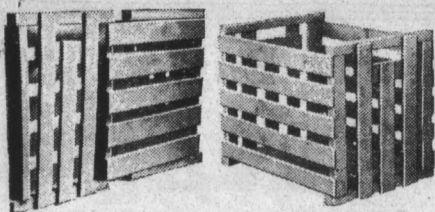
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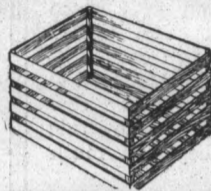
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GOING WHEAT—A bearded variety of red wheat. Splendid yields, very hardy, stiff straw, never lodges. The best wheat I ever grew. Send for sample and prices.

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Seed Wheat—Red Wave, Poole and Winter King; Clover, Timothy, Alsike, Alfalfa and all kinds of Pure Field Seeds direct from producer to consumer; free from noxious weeds. Ask for samples. BIG TYPE Paland China, March and April pigs at reasonable prices. A. C. HOYT & CO., FOSTORIA, OHIO.

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## Horticulture.

### SUMMER MEETING OF THE STATE HORTICULTURAL SOCIETY.

What was probably the most successful summer meeting of the State Horticultural Society, was held in conjunction with the Oakland County Horticultural Society, August 5-6. The itinerary of the two days' meeting, which was really a trip of horticultural inspection, was a very instructive and entertaining one, because it offered opportunity for the inspection of many different phases of horticultural work.

The meeting started Wednesday morning by a general gathering together at the home of R. J. Coryell, one-half mile east of Birmingham. The Oakland county people furnished automobiles to convey the visitors from the interurban station to Mr. Coryell's home. The morning was spent in getting acquainted and in inspecting the well-kept orchard and ornamental nurseries of Mr. Coryell.

#### A Good Crowd Gathered.

After an excellent luncheon served at noon, on the porch and lawns, to about 150 people, the visitors were conveyed by auto to the farm home of Misses Addie and Sarah Sly, about three miles west. There they enjoyed inspecting the old apple orchard and the peach orchards on the farm of over 200 acres which the Misses Sly manage. The general condition of the farm and orchards and the conveniences for doing both the farm and the household work, were evidences of the ability of the Misses Sly as farm and household managers.

At about 3:30 o'clock a meeting was called by President Munson, of the State Society, and a general informal discussion of the important fruit questions was engaged in. The control of the blight and a new fruit law similar to the one just put into effect in New York brought out the most discussion. There were differences in opinion as to the control of the blight, some believing that cutting out had little effect but that seasonal conditions had the most influence in its spread or its control. However, the present accepted way of cutting the blight out and sterilizing the wounds or the tools used, was thought by the majority to be advisable. An apple grower from the State of Washington told of the prevalence of blight in the west, and of the strict measures they were using to control it, but he was not sure that these methods would absolutely control it.

#### A New Fruit Law Favored.

The fruit law discussed would make compulsory the putting of the name and address of the grower and the grade of fruit on all closed fruit packages. This law was generally favored and was thought to be of benefit to the fruit growers because it would add to the reputation of Michigan fruit, as it would make the buying of it a certainty instead of a grab in the bag as it is now.

After a most excellent supper served on the well-kept lawn, the visitors were taken to the orchard of Mr. Case, where the sod mulch method is practiced. The result showed that good fruit can be grown by more than one method and that the exceptions to the accepted rules and methods sometimes worked.

Thursday morning the members and visitors gathered at the country home of Mr. G. G. Booth, where over a million dollars has been spent in landscape gardening. About an hour was spent in inspecting the large and well-kept grounds. The rock garden and various formal gardens attracted considerable attention.

From this place the visitors were taken by automobile to the summer home of Mr. Edwin George, on Long

Lake, where an hour was spent in looking over the ground and orchards. While not as pretentious as the grounds of Mr. Booth's estate, they were equally attractive, and the visitors felt amply repaid for their stop there. After the sightseeing, a light lunch of sandwiches and lemonade was served, and was greatly appreciated by the members.

#### A Large Crowd at Ward Farm.

The next stopping place was the Ward orchards, near Pontiac, the members arriving there at 11:30, the schedule time. Mrs. M. D. Ward had a most excellent dinner prepared. The crowd, however, was twice as large as expected, which caused a slight delay in serving the dinner. The supply was plentiful, however, and all of the hungry ones were satisfied. The ladies were served in the house, where the tables were nicely decorated and the gentlemen were served at tables on the lawn. There were fully 250 served, and Mrs. Ward can be complimented upon the manner in which she showed her hospitality to so large a number.

#### Large Orchards Inspected.

After dinner a meeting was called and a general description of these extensive orchards was given. After this Mr. Fred Ward was called upon, who, after welcoming the society, told of some of his experiences in orcharding. After a short discussion on general fruit subjects, the meeting adjourned and the members spent several hours in inspecting the orchards, the large packing shed, the cooper shop, and the spray mixing shed. At 3:30 the visitors were taken to Pontiac and conducted through the motor truck factory of the General Motors Company. After the various steps in the process of manufacturing auto trucks were shown, the management served light refreshments.

The success of this meeting is a credit to the Oakland County Society, and their hospitality gained them a reputation. Wednesday night their members royally entertained in their homes most of the large number of visitors from other parts of the state. Other fruit-growing districts of the state were well represented, the fruit belt along the Lake Michigan shore especially, having a large number in attendance. These summer meetings are among the most valuable and instructive, and the State Society has and the large attendance each year show that they are appreciated.

#### TROUBLE DEPARTMENT.

##### Transplanting of Raspberries and Asparagus.

Could you tell me when is the best time to transplant asparagus and raspberry plants, and can they be successfully transplanted in August, and how deep to plant?

SUBSCRIBER.

Spring is the most desirable time for transplanting most all fruits and perennial vegetables, because at that time of the year the plants are making a new start and the soil and weather conditions are favorable for newly set plants to establish themselves.

It would not be advisable to transplant either asparagus or raspberries during August as both these plants are just about half-way through with their season's development and transplanting at this time would cause them to lose their foliage and die back, and then if the conditions were favorable a new start would be made. This new growth would not have time to properly mature before the winter set in and would be injured by the cold.

If it is urgent that these plants be transplanted at this time, the only method that could be suggested would

be a thorough wetting of the soil in which they now stand and then digging them up with enough soil adhering to them to not disturb the roots. This should be followed by shading the plants from intense sunlight and frequent watering, however, regardless of the amount of care given the plants in transplanting at this time of the year, satisfactory results cannot be guaranteed.

Regarding the depth to set plants, a good general rule is to set them a little deeper than they were where they were growing.

#### Pruning Questions.

Please tell me when to trim raspberries and when to trim the new canes, stating how far back to cut. I would also like to know how to fix strawberry rows, and what is the best kind to plant?

Hillsdale Co.

G. W. S.

The proper time to head back the new canes of the raspberry is when the canes are about two and a half to three feet high. This heading back is done to encourage the growth of laterals and branches low on the cane. The old canes of the raspberry should be cut out immediately after the crop is harvested, as they are usually diseased and are a source of infestation for the new canes.

To renew strawberry rows which have borne fruit, they should be cut down to the width of a single plant, and all the old plants hoed out. This can easily be done by plowing away from the row on both sides immediately following with the weeding and hoeing. As soon as possible the earth should be raked back to the ridge that has been left by plowing, so that the plants will not dry out. Following this the strawberry plantation should be cultivated and kept in good condition generally to encourage the plants to establish new rows for the coming season.

It is hard to advise with reference to varieties of strawberries, as the selection depends greatly upon the kind of soil in which the plants are to be set. However, as a general favorite the Senator Dunlap stands foremost. It does well on a larger variety of soils than any other variety grown.

#### CONTROLLING CABBAGE WORMS.

At this period of the year one of the serious problems of the gardener is how to deal with cabbage worms. The white butterfly with small dark brown spots on its wings, which we see so often flying over the meadows, is the adult of the cabbage worm. As yet there is no remedy which is effective against this butterfly, and likewise, we know of no effective measures for killing the eggs after they have been laid on the cabbage plants.

An arsenical spray (either Paris green or arsenate of lead), may be used after the head of the cabbage starts to form. Such a spray should be made in the same proportions as that used for potato beetles. It is a dangerous practice to spray with an arsenical after the heads have begun to form, as some of the poison may remain in the head until after it is harvested.

Pyrethrum is the powdered root of an Arabian daisy and may be purchased at any drug store. It is a very good contact insecticide, and still, at the same time, it is not injurious if taken into the human system. For use on the cabbage worm, a solution of one-half ounce of pyrethrum and one gallon of water should be used as a spray. This is a "contact spray" and by this we mean that it will kill all worms it touches. It may be necessary to go over the cabbage patch two days in succession in order to get all the worms, for some of them will be on the under side of the cabbage leaves; yet, at this, it is better to spray twice with pyrethrum than to run any risk of injury with an arsenical spray after the heads have begun to develop.

Ingham Co.

I. J. MATHEWS.

## Practical Science.

### LABORATORY REPORT.

BY FLOYD W. ROBISON.

#### Soil Acidity and its Correction.

I have been told that marl which is found in lakes in this county in large quantities, is good for sweetening a sour soil. I have tried this, but could see no benefit. I tested the soil by taking a little of it, wetting it and putting in a piece of blue litmus paper which it turned red, and then I applied about as much marl as I used soil and let it stand for 12 hours, but it failed to turn the paper back to blue. Kindly explain the apparent discrepancy between the accepted theory and my experience.

**SUBSCRIBER.**  
Regarding the use of marl for the sweetening of sour soils. From a theoretical point of view, based on the composition of marl, it should be quite satisfactory for this purpose, as marl, at least good light marl, will contain usually over 90 per cent carbonate of lime. It is usually conceded that carbonate of lime is effective for this purpose.

#### One Advantage of Marl.

There has been of late some question thrown around the effectiveness of carbonate of lime, but we think this disadvantage, if there is such a disadvantage, would be more apt to apply to carbonate of lime from ground limestone than to carbonate of lime from marl. Of course, marl is not a very active substance, and we should necessarily expect that results from the employment of marl would be very slow. Possibly it might take two or three years for a soil to become permanently benefited by an application of marl or ground limestone. Marl has an advantage over limestone in that it is in a state of much finer division. We think that fineness of division is probably the point which most governs the value of carbonate of lime.

#### Hydrate of Lime vs. Carbonate of Lime.

It is apparent to us from reports by authentic observers that much quicker results will be obtained on a soil by the use of hydrated lime. Of course, hydrated lime is strongly alkaline and naturally we would expect it to neutralize soil acidity much quicker than carbonate of lime, but undoubtedly hydrate of lime, when worked into the soil, becomes very rapidly carbonated, but being a precipitated product, its fineness of division makes the surfaces exposed almost infinite and consequently the influence of soil water on its solubility is very great. To our mind this is the main factor which exhibits the superiority of hydrate of lime over carbonate of lime.

#### The Litmus Paper Test for Acidity.

Regarding the popular methods of determining soil acidity, we will say that we have never been in sympathy with them. We doubt very materially if any trustworthy results can be secured from what is known as litmus paper tests for acidity of soils. We know this test has been advocated for many years and many experiment stations have devoted considerable time in the employment of this test on soils. However, we challenge the reliability of such tests so, therefore, we think that the litmus paper test on the marl in question should not be taken as an evidence that the soil is acid or that the marl will not have a beneficial influence upon it. We think likewise that many soils have been considered acid that were not acid.

#### Is a Soil Acid that Grows Sorrel?

There is another commonly considered indicator of the acidity of the soil, and that is a soil which contains an abundance of sorrel. We have heard farmers, and lecturers also, state that they were certain a soil was acid because it grew an abundance of sorrel. We suppose the reason for this is that sorrel being a sour

plant and tasting sour, it naturally was supposed that a soil must be acid or sour to produce it. We think there is no warrant for any such statement. Because a soil may be acid is no indicator that sorrel is best adapted for it, and because sorrel is grown on a soil is no indication that the soil is acid. Sorrel contains oxalic acid, and so pronounced is this acid content that the plant is known scientifically as oxalis, but sorrel contains no more oxalic acid surely, than lemons contain citric acid, and lemons, of course, are called citrus fruit because they contain citric acid. We have never heard anyone maintain that because lemons or lemon trees thrive in California, the soil of California is therefore acid. Neither have we ever heard the claim that because strawberries grow well in Michigan, that the soil of Michigan is acid because the strawberries contain malic acid; nor that the grape-producing soil is necessarily acid because grapes contain tartaric acid.

#### Are Soils Necessarily Acid that Are Improved by Lime?

We think it is time this idea were dispelled. We are somewhat inclined likewise, (and I suppose we will be accused of scientific heresy in a way, for all of these various statements), to discredit the idea that lime is valuable on a soil because that soil is acid. Because lime itself happens to be alkali, we see no special reason for concluding that its benefits are shown solely through the neutralization of an acid. Lime is undoubtedly a valuable adjunct to soils supporting leguminous crops, and we think the reason is because it administers in some way to the proper soil atmosphere for leguminous plants.

#### The Best Remedy for Soil Acidity.

We might encourage farmers to resort to several of the common more or less popular tests for soil acidity, but we do not believe any great permanent good will be accomplished by any such procedure. Let it be understood that we do not claim that soils are never acid. We think that many times through improper drainage or lack of drainage, and the lack of aeration of the soil, the soil becomes acid, due to an accumulation perhaps, of waste material in the soil. We think that the most effective remedy for such a condition lies not in the addition of lime to overcome acidity, but in the substitution of proper drainage and the encouraging of sufficient aeration. Lime may be added to advantage, for we think most soils will stand the addition of lime at rather frequent intervals, but it should not take the place of sufficient drainage and effective aeration.

#### THE FLIGHT OF THE HOUSE FLY.

Observations made in England show that house flies tend to travel either against or across the wind. This direction may be directly determined by the action of the wind, or indirectly, owing to the flies being attracted by any odors it may convey from a source of food. The chief conditions favoring the dispersal of flies are fine weather and a warm temperature; the nature of the locality is another considerable factor, as in towns flies do not travel as far as in the open country, this being probably due to the food and shelter afforded by houses.

It was found that when set free in the afternoon flies do not scatter so well as when liberated in the morning. From the experiments the usual maximum flight in thickly housed localities seems to be about a quarter of a mile, but in one case a single fly was recovered at a distance of 770 yards. Part of this distance, however, was across meadow land.

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DETROIT, AUG. 22, 1914.

## A FEW LEADING ARTICLES OF THE WEEK.

- Where Conservation Can be Properly Applied.—An argument for the conservation of a valuable by-product, straw.....137
- Grasshopper Bait.—Some methods of controlling the grasshoppers where fall plowing cannot be practiced.....138
- Economical Cattle Feeding.—An analysis of items which enter into the cost and profit of cattle feeding.....140
- Soil Acidity and its Correction.—A scientist's view on the general question of soil acidity.....143
- Among the Wonders of Tropical Ceylon.—An interesting travel article by an interesting writer.....145
- Packing for Shipment.—Pertinent advice for beginners in the shipping of farm produce.....152
- New Net Weight Law Affects the Honey Producers.—An explanation of the application of the new law.....154

### CURRENT COMMENT.

**The Primary Election.** Important changes were made in the primary election law by the last Legislature. These new provisions will be in force for the first time in the general primary election which will be held on Tuesday, August 25, for which reason we are calling the reader's attention to some of them, to the end that errors which might void many ballots may be avoided.

One of the important changes made in the law abolished party enrollment and provided for the printing of the list of candidates of all parties on a single ballot, instead of having a separate ballot for each party, as heretofore. The names of the candidates for the several offices for which party candidates are to be selected at the primary election are printed on the ballot under separate party headings, with the name of the party with which they are affiliated appearing at the head of the column. A properly marked ballot will have a cross placed in the circle at the head of the ticket in the column indicating the party with which the voter is affiliated, and a cross in the circle before the name of each candidate in the same column for which the voter desires to cast his ballot. The number of persons voted for in this column must not exceed the indicated number of candidates to be nominated for the several offices, else the vote for those candidates will be void, and there must be no attempt to

vote for candidates in more than one party column or the entire ballot will be thrown out in making the canvas of the vote. While the ballot will be comparatively large, its proper preparation will be simple, as above indicated. The important things to remember are that it is impossible to vote for candidates in more than one party without voiding the ballot and that there must be a cross placed in the circle before the name of each candidate for whom the elector desires to vote.

At this primary election party candidates will be selected for the offices of Governor, Lieutenant-Governor, Representative in Congress, State Senator, Representative in the State Legislature, and for the various county offices. There will also be chosen delegates to the various party county conventions to be called later for the purpose of selecting delegates to the state convention to be held for the purpose of nominating candidates for state offices other than those of Governor and Lieutenant-Governor.

Attendance at this primary election to be held on Tuesday next for the selection of candidates for important state and county offices is a duty incumbent upon every citizen, and we trust that every voting member of the Michigan Farmer family will be among those who discharge this duty of citizenship, even though it may entail a measure of personal sacrifice.

As the situation becomes clarified, pessimistic prophecies with regard to the business outlook for the United States are seldom heard, while the possibilities of the development of an important foreign trade with South American countries are a more frequent subject of conversation. It is generally agreed by students of the problem that such a development will be of lasting benefit to this country, and it is practically certain that the exigencies of the present situation will prove an influential factor in the building up of our merchant marine. While it is true that the prices of some commodities will be at least temporarily affected by the European war, the prompt action of the government in starting a general price probe will be a practical guaranty that consumers will not be generally exploited by greedy speculators, and the legitimate advances in staple foodstuffs will be a benefit to the farmers of the United States by tending to sustain values at a point which will leave them a reasonable profit at a time when abnormal production in some lines threatened to bring on a general slump in values for staple agricultural products.

While this war is indeed a most regrettable development of the strained political conditions in Europe, and while the economic loss which it will bring to the world is bound to be tremendous, there is no reason to believe that any considerable proportion of that loss must be borne by the people of the United States, and there would seem to be a practical certainty that none of it will be necessarily entailed upon the farmers of Michigan.

In a day's ride through the country by automobile the traveler cannot but be impressed with the apparent fact that more efficient road work is being done than was the case under the old plan. Considerable work was done in almost every locality early in the spring in grading up the dirt roads and improving drainage conditions where the spring freshets demonstrated such improvements to be needed. Now, with the harvest still uncompleted and threshing the order of the day in most communities, one will find graveling being done at some point in almost every township and in a ride of any considerable length one is almost sure to find considerable stretches of freshly graveled road, other than

county or state reward road. It is also pleasing to note that holes are being filled with gravel to keep roads previously graveled in good condition and everywhere there is evidence of more systematic and intelligent direction or road repair work than was formerly the case.

This condition, which we believe to be fairly general over the state, is a strong argument in favor of the cash tax for road improvement and repair work as compared with the old labor tax formerly in vogue. Apparently the work is more efficiently done, and certainly it is done more seasonably. Nor is it a hardship to the taxpayers when, as is ordinarily the case, they have an opportunity to employ men and teams in the work if they so desire when it is being done. Efficiency in road work in the maintenance of the great mileage of common earth roads which cannot be permanently improved by the more expensive methods which are employed in building county or state reward roads will do more than any other one thing toward stimulating a general public sentiment for permanent road improvement, and will at the same time prove a greater immediate benefit to more farmers than will the excellent work in permanent road building which is being carried on in many counties of the state.

A well known and notably successful farmer living in a central Michigan county was recently heard to remark that there were two events which every farmer ought to attend, and which he made it a point never to miss. The two designated events were the State Fair and the State Round-up Institute. The reasons given were that at the State Fair the farmer had an opportunity to study the latest developments in farm machinery, types of live stock, varieties of products, etc., while at the Round-up Institute he could hear discussed the latest methods of accomplishing profitable results in any department of farm work.

This was good logic, and may well be made the subject of thought by every Michigan Farmer reader. There is no doubt about the agricultural fair being a valuable educational medium, which it will pay every farmer to patronize, and as the State Fair is at the head of the list in the educational opportunities which it offers its patrons, there is an even better reason for attending it than for attending the local and district fairs which are quite generally awarded the support which they merit. But farm people want, like other people, to be entertained as well as educated, and here, too, the State Fair will be found to be strong. A study of the announcement made in another column of this issue will convince any reader of this fact. If Michigan farmers generally will follow out the advice given by the successful farmer above referred to, the entertainment features enjoyed will in themselves pay him for the time and trouble of attending, while the educational influence exerted through a general attendance of the State Fair at Detroit, Sept. 7-18, would promise much of benefit for the future of Michigan's agriculture.

A good way to develop the farm boy into a good business man is to give him a chance to do a little business on his own account, and if that chance is in the way of an economic saving, all the better. Let us illustrate this idea by a concrete example. In a drive of a few miles through almost any section of lower Michigan one sees thrifty patches of sweet clover growing by the roadside. This plant, which has so long been considered a weed by the average farmer, has come to have an economic place in our agriculture. At least, many farmers are of that opinion and are either experimenting by sowing

some of the seed in their fields or are planning on doing so in the near future. This fact has created such a demand for the seed of this plant that the price of the seed on the open market is about twice that of clover or alfalfa seed. Right here is a chance for the farm boy to make some pocket money from a source which would insure an economic saving to the community. This is but one of many examples which might be cited as an encouragement to the farm boy who is always in need of pocket money. Others will suggest themselves to him once he begins to think along this line. His parents, too, should interest themselves in directing his energies to some account along economic lines. Some effort expended in this direction will make him a better citizen and a better business man when he has grown up.

### HAPPENINGS OF THE WEEK.

#### Foreign.

**European War.**—News from the war zone is not very enlightening; however, it appears that large armies of German troops, and the allied forces of Belgium, France and England are moving toward each other along the German frontier and in Belgium. In spite of the reverses the Kaiser's soldiers met at Liege, the forts of which place have not as yet been taken, due to the stubbornness of the Belgian troops, a slow advance is being made toward Brussels and the old battlefield of Waterloo. It is anticipated that a general engagement will soon take place, since the allied forces are moving toward the frontier between Waterloo and Namur, a point on the Meuse river. In the Vosges mountains on the border between France and Germany near Switzerland the French seem to have met with success and are reported to now hold every pass through the ridge. They have also pressed into Alsace-Lorraine where they threaten Mulhausen and Strassburg. On the east of Germany, Russia is getting her forces in action and the early invasions by German soldiers is being offset somewhat by their slowly falling back before the advance of the Czar's regiments. Austria has also been invaded by Russia and the meager news indicates that the Austrians were defeated in an engagement on their own soil. The Serbians are also successfully defending their frontier against Austria, due to the withdrawal of Austrian forces to help Germany along the French border and to stop the advance of the Russians in the northwestern provinces. No naval battles of importance have been reported, but it is hinted that the German fleet is bottled up about the peninsula of Jutland and that the Austrian fleet was assembling in the Adriatic Sea for a conflict with the British Mediterranean warships. Japan has sent an ultimatum to Germany to withdraw or dismantle her warships in the far east, as they are a menace to commerce and the rights of England, Japan's ally, through a treaty signed in 1911, are threatened. Germany is given a week to reply to Japan and it is declared that the Nippon government is ready to strike should the Kaiser's answer prove unsatisfactory. Italy's refusal to allow Austrian troops to pass over her soil is straining relations between the two countries and there is likelihood that the former country may still be drawn into the conflict despite her repeated declaration of neutrality. In all there has been nothing given to the outside world that would indicate the probable strength of the contending forces and the incidents that have thus far come to us are merely the preliminaries to what promises to be the bloodiest war of history.

The constitutionalists of Mexico have finally entered Mexico City and early this week Chief Carranza, their leader, arrived from Tlalnapantla. The new government will be established immediately. Fighting is not over, but it is generally understood that the small bands of federal troops, one of which is located at Guadalupe, will not be able to hold out long against the well organized forces under Gen. Villa.

#### National.

The call from South America for goods to substitute for those usually imported from Europe, has set manufacturers and exporters of this country busy making arrangements with concerns of Latin America to use American goods.

Vesselmen of the Great Lakes are now being looked to to aid in manning the United States merchant marine to be fitted out for the carrying of goods to and from this country during hostilities in Europe.

# Magazine Section

LITERATURE  
POETRY  
HISTORY and  
INFORMATION

**MICHIGAN FARMER**  
AND **LIVE STOCK**  
PUBLISHED WEEKLY  
**JOURNAL**  
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The **FARM BOY**  
and **GIRL**  
**SCIENTIFIC and**  
**MECHANICAL**

This Magazine Section forms a part of our paper every week. Every article is written especially for it, and does not appear elsewhere

## Among The Wonders of Tropical Ceylon.

By ALFRED VIVIAN.

TO awaken in the morning in the harbor at Colombo, Ceylon, and have the eye greeted by a view of this intensely green island, after the journey across the Indian Ocean, is but another of the many surprises being continually encountered by the traveler around the world. All through the Suez Canal the eye is wearied by miles of trackless desert sand stretching away on either side. In the Gulf of Suez, land is always in sight, but it consists of brown and gray hills devoid of vegetation. Through the Red Sea the ship passes numbers of islands and again at Aden comes to anchor near the shore for the last time before passing into the eastern ocean. Everywhere it has been the same rainless climate, with treeless, grassless hills, parched by the intense sunlight which beats down with scorching power on what someone has called the "Red Hot Sea." Such is the last memory of the land—and this morning behold here is Ceylon where vegetation runs riot, and where plain and mountain-side are clothed in verdure, which for greenness is equaled in few other places in the world! Is it any wonder that all travelers agree that the one thing which stands out in their memories regarding Ceylon is the brilliant green coloring of the whole island?

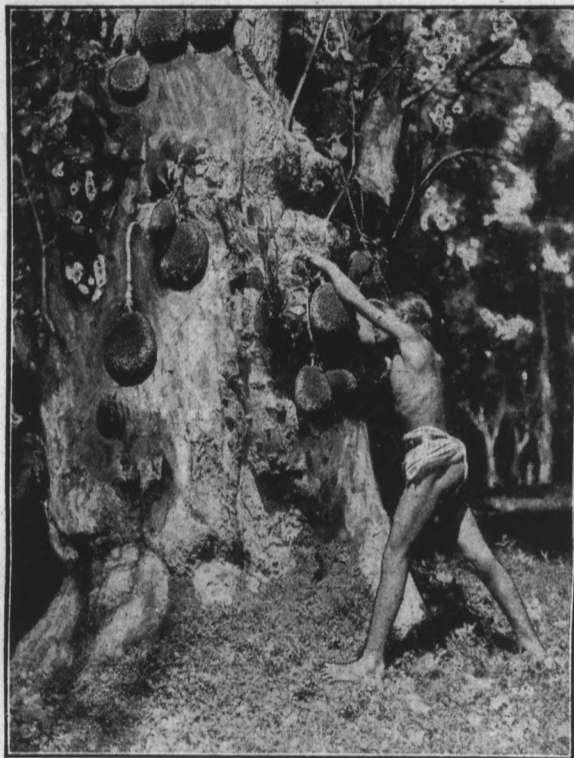
Looking at the map, Ceylon appears as a pear-shaped island hanging like a pendant from the point of the Indian Peninsula. It has a total area of about 25,000 square miles. Lying near the Equator the temperature is very high on the coast levels, but as the mountains of the interior rise to some 8,000 feet it has a considerable range of temperature. "The rain it raineth every day" in Ceylon, as Shakespeare would say—the annual rainfall amounting to from ninety to over one hundred inches. As the atmosphere is constantly reeking with moisture the high temperature of the lowlands is almost unbearable to the stranger, and even the white man who has resided for years in the island, is compelled occasionally to "take to the hills" in self preservation. There are no seasons in Ceylon; all the year round it is hot, humid, growing weather, with neither change of scene nor temperature; always beautiful, generally enervating it is as one man expressed it, "simply a case of too much of a good thing."

At Colombo, the passengers are landed at a pier which leads directly into the principal street of the city instead of passing through blocks of dirty wharves and storehouses, as is so often the case in seaports. Here is encountered for the first time the jinrickisha as a method of transportation, and these conveyances propelled by scantily clothed coolies are hurrying to and fro in every direction. Like other seaport towns, Colombo has a cosmopolitan population, none of which are so interesting as the Singalese themselves.

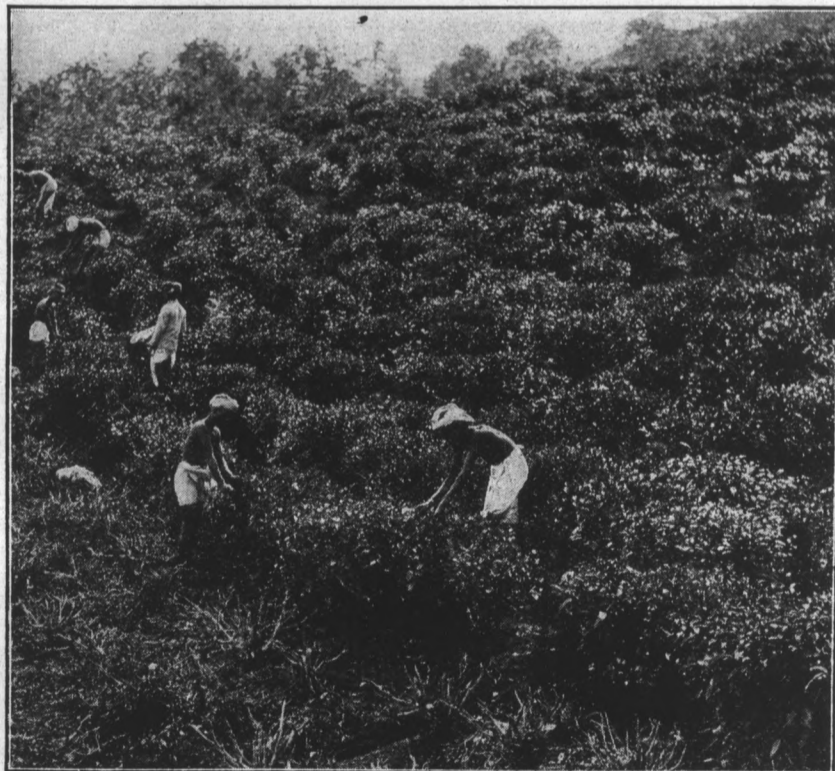
Perhaps there is nothing that strikes the stranger from the west as being more extraordinary than the peculiar custom which requires the men to wear long hair twisted into a coil at the back of the head, and a horse-shoe shaped tortoise shell comb at the

top, while the women remain innocent of this form of adornment. It is said that one of the great ambitions of the men of the humbler classes is to possess a comb of the finest luster and quality, while many mark their higher social position by an additional

by thousands at dawn to spend the day in foraging. They are seen in every place where food, good or bad, is found, and unlike the American species, are devoid of all timidity. For impudence and daring they are unrivaled among birds. The hotels



Native Gathering Fruit from Jak Tree.



Harvesting the Tea Crop on the Island of Ceylon.

comb which rises to a considerable height above this glossy coil of hair. No one speaking of Colombo can forego saying a word about the crows for which the city is famous. They have their sleeping quarters on a small island near the shore which has come to be known as Crow Island. From here they swarm into the city

post notices warning guests to leave no buttons, rings nor other jewelry upon the stands or dressers, as they are likely to be carried away by the crows which flit back and forth through the screenless windows. It is said that the crow will even appear at the dining-table and fly off with the choicest morsel on it; he will swoop

down and take the food from the child's hand uninvited, and is so quick in his movements that he will catch any food thrown from the window before it can reach the ground. But he is protected because of his usefulness as a scavenger, a vocation which, being a dirty feeder, he prosecutes to the advantage of the whole community.

Ceylon has been called a "Paradise of Palms, Pearls and Perfumery." The tropical heat and humidity make possible the luxuriant growth of palms and ferns which abound all over the island, as well as the spices and fruits for which it is famous. The trip to Kandy with its wonderful mountain scenery, and a visit to the splendid botanical garden at Peradeniya, make it possible to see in the shortest time most of the important agricultural plants of the island. In the lower reaches of the mountains are seen the terraced rice fields carried well up the sides of the hills. The rice field must be covered with water for the greater part of the growing season, and wherever a stream is found in these mountains the ground is leveled and terraced, at great expenditure of labor, so that the whole hillside appears as a series of steps varying in width according to the contour of the ground. Where rice can be grown it seems to be preferred to any other crop.

One of the first things noticed in Ceylon is the large number and great distribution of the cocoanut palm, but it is said not to be indigenous, and the natives have a saying to the effect that a cocoanut tree will not flourish away from the sound of the human voice. The cocoanut is the chief source of the Singalese wealth. As it depends upon man for existence, and if left to nature pines and dies, it follows that wherever the cocoanut palm is seen there is population. It is the national tree, the friend of the native and its uses to him are infinite.

With the trunk of the tree he builds his hut and his bullock-stall, which he thatches with its leaves. His bolts and bars are slips of the bark, by which he also suspends the small shelf which holds his stock of home-made utensils and vessels. He fences his little plot of chillies, tobacco and fine grain, with the leaf stalk. The infant is swung to sleep in a rude net of coir-string made from the husk of the fruit; its meal of rice and scraped cocoanut is boiled over a fire of cocoanut shells and husks, and is eaten off a dish formed of the plaited green leaves of the tree with a spoon cut out of the nut-shell. When he goes fishing by torch-light his net is of cocoanut fiber, the torch of chule is a bundle of dried cocoanut leaves and flowerstalks; the little canoe is the trunk of the cocoanut palm tree, hollowed by his own hands. He carries home his net and string of fish on a yoke, or pingo, formed of a cocoanut stalk. When he is thirsty, he drinks of the fresh juice of the young nut; when he is hungry, he eats its soft kernel. If he has a mind to be merry, he sips a glass of arrack, distilled from the fermented juice, and he flavors his curry with vinegar made from this toddy. Should he be sick, his body will be rubbed with cocoanut oil;

he sweetens his coffee with jaggery or coconut sugar, and softens it with coconut milk; it is sipped by the light of a lamp constructed from a coconut shell and fed by coconut oil. His doors, his windows, his shelves, his chairs, the water gutter under the eaves, are all made from the wood of the tree. His spoons, his forks, his basins, his mugs, his salt-cellars, his jars, his child's money-box, are all constructed from the shell of the nut. Over his couch when born, and over his grave when buried, a bunch of coconut blossom is hung to charm away evil spirits.

The marvelous bounty of the coconut palm thus furnishes the natives practically all they need and has been gracefully summarized by the poet as "Clothing, meat, trencher, drink, and can, Boat, cable, sail, mast, needle, all in one."

Sometimes the coconuts are sacrificed in order to produce a drink much in favor with the native, called "toddy." This is obtained by bruising the flower bud repeatedly for several days and then cutting off the end, when a sweet sap exudes from the cut, which is caught in a small gourd and collected day by day. When fresh the drink is harmless but it ferments very rapidly and when old produces an intoxication worse than that due to American hard cider. Much of the toddy is distilled to obtain a sort of brandy which is called arrack. The extent to which this industry is carried on is shown by the fact that the revenue from arrack and toddy licenses amounts to \$1,500,000 annually.

One of the peculiar trees of Ceylon is the Jak, which grows the largest of all edible fruits, and bears them in prodigious quantities and in a queer fashion. The tree throws out huge pods from the trunk and large branches and suspends them by short thick stalks. There are sometimes seventy or eighty of these fruits upon one tree, some of them weighing as much as forty to fifty pounds. They are pale green in color with a granular surface. Inside the rough skin is a soft yellow substance, and imbedded in this are kernels about the size of a walnut. This fruit forms an ingredient of the native curries, but its flavor is not pleasant to foreigners. The wood of the tree is very valuable and is harder than mahogany.

The rubber tree which in America is known as a small plant with bright oval leaves, and is seen in sitting-rooms and conservatories, here grows to an enormous size and throws out horizontal branches to an extent of over 50 feet. It is more remarkable for its snake-like roots which grow partly above ground and extend like huge pythons from the base of the trunk to a distance greater than the height of the tree. The part of the root which grows above the ground is flattened and occasionally reaches such a height that a man could hide standing upright behind it. When wounded tears appear on the surface which harden into one of the varieties of the Indian rubber of commerce. The tree most commonly grown for rubber, however, is a different species and in no way resembles this tree in appearance, but was introduced from tropical America, and at the present time large tracts of land in Ceylon are devoted to its culture.

Another tree scarcely less useful to the native than the coconut is the Talipot palm. This tree produces immense fan-shaped leaves which often have a radius of 15 feet, giving a surface of about 350 square feet. The uses to which the leaves are put are said by the native to be eight hundred and one, the chief being for the manufacture of raincoats and sunshades. Three or four of these leaves will make a tent, and a section of one forms the umbrella of the omnipresent Buddhist priest. The thin parts of the leaf between the ribs are boiled and dried when they become the paper or parchment of the Singalese.

In the Temple of the Tooth at Kandy (where Buddha's tooth is supposed to be), and in many other places, may be seen whole books written on this peculiar paper. Manuscripts may be seen which are over one thousand years old and are yet in perfect condition, with the characters so clear that it is impossible to realize their age. These books are written by scratching the surface of the leaf with a steel stylus and then rubbing black ink into the scratch. These magnificent trees send their stems for more than one hundred feet straight up into the air, the trunk being encircled with closely set ringmarks showing where it has borne and shed its leaves from year to year. When the Talipot reaches maturity it develops a huge bud about four feet in height and this bud bursts open with a report and unfolds a large pyramid of white or cream-colored blossoms which rise to a height of twenty feet above the crown of the tree. The tree reaches this stage in about sixty years and after maturing the one crop of seeds it begins to droop, its leaves wither and within a year it is dead.

The great variety and beauty of the bamboos found on the island are a never ending source of pleasure. Most striking among these is the Giant Bamboo which grows to a height of at least 120 feet and is nine or ten inches in diameter. It is hard to realize that these plants are really grasses and are closely related botanically to the common grasses of our own country. The culms appear in June or July and grow at the rate of more than a foot a day—they can almost be seen to grow. In Colombo we noticed that all scaffolding for buildings was made of bamboo and the general usefulness of these plants makes them rank well with the trees above described.

In one corner of the Peradeniya Gardens were seen hundreds of so-called "flying squirrels" hanging to the upper branches of the tall trees. These animals are really large bats,

and live largely upon seeds, especially of the banyan tree. By day they hang suspended from the branches of the trees and at night unhook themselves and make a great commotion on their foraging expeditions. Their bodies are as large as rabbits and their "wings" often measure four feet from tip to tip.

To most people, Ceylon suggests tea and rightly so, for the tea plant is an even greater source of income to the island than the coconut palm. The tea plantations now cover thousands of acres and are largely on the mountain sides at elevations varying from 1,600 to 7,000 feet. No scene on the whole island is more interesting than the thousands of pickers at work in these plantations. Here the plant grows the year around and the plantations must be picked over once a week, for only the bud and the two leaves next to it are usable if a good quality of tea is to be produced. On some estates producing lower grade tea, two more leaves are plucked. The difference in quality of the brands of tea depends upon the size of the leaves—the smaller they are the finer the flavor of the tea—for only one variety of tea plant is grown here. Tea culture is by far the most scientifically conducted kind of agriculture of this country and a description of the cultivation of the plant and the preparation of the leaf for market would make an interesting story by itself.

A host of other plants are found here, each with its fascination for the student of agriculture. We have seen nutmegs, allspice and cloves, cinnamon and cassia, as well as bananas and the sago palm. Comphor trees grow in abundance and the beautiful orchids are a source of delight. At the same time it is well to have an eye open for surprises in the form of scorpions and cobras which may appear anywhere, for even the private gardens of this delightful island (thought by some to have been the site of the Garden of Eden) are not always exempt from these enemies of mankind.

## Radiant Rory

By JANET THOMAS VAN OSDEL.

WHEN Mrs. Dean's baby girl was laid in her arms, the mother closed her eyes on the dreary, poverty-stricken room while she held against her heart the warm, little body in a transport of joy and gratitude. Already she was planning how the little daughter would fill her life and take the place of the husband who had died six months before. She named the child Aurora because her coming meant the dawn of a new day. But before little Aurora was a year old, Mrs. Dean was called to join her young husband and the baby was left without a living relative.

Brighton is the kind of town where every family seems to have plenty of babies of its own. Nobody wanted Aurora and so she was taken to the State Home for Orphans where for ten years she lived with fifty other unwanted little boys and girls. Nothing in particular happened to Aurora during those ten years. She played with dozens of children all dressed in checked gingham aprons like herself. Her hair was clipped and her name was shortened to Rory. Rory herself was the chief disturber of the monotony of the Home. Many a day did she enliven for the other children by meting out punishment to those who slyly called her red-head and freckle-face.

Then one bright June day a visitor called at the Home. Rory was summoned and presented to Mrs. Spear. Instead of smiling winningly and making the correct little curtsy expected of Home children, Rory scowled darkly, hung her head and mumbled something, nobody knew what.

"Ugly!" commented Mrs. Spear. Of course Mrs. Spear couldn't know that Rory had been called in just as she was about to punch Jimmy Sands'

face for calling her a red-head and that Rory was so aggrieved at her lost opportunity that she couldn't act pleasant. And Rory did not think of Mrs. Spear's word "ugly" as applying to her manners, but rather to that most sensitive of all points with Rory—her looks. She was an utterly miserable little girl until supper was served. The jam that Mrs. Spear had brought the children was a rare treat and when Rory got up from the supper table she was sweet and sticky and happy. It was just after supper that she was again called into the parlor and presented to Mrs. Hornberger. This time Rory made the expected curtsy, offered a small hand somewhat sticky between the fingers, and said sweetly, "I hope you are in good health, ma'am."

"I guess she'll do as well as another. Looks fairly strong," said Mrs. Hornberger.

Thus it was that Rory went to live with Mrs. Hornberger and her seven children. There was always more work to be done, with little play, and a deal of teasing on the part of the little Hornbergers. All of this combined to make Rory sharp of tongue when she wasn't sullen. At fourteen she had not a friend in the world and the only person for whom she cared was little, crippled Christine Hornberger.

It was on a day as dark as Rory's own mood that the girl started out for town to buy the butter that Mrs. Hornberger had forgotten to order. She was so tired after scrubbing and sweeping that she little felt like walking the mile. That morning Adolph had told her that a penny wouldn't cover one of her smallest freckles and her yellow-spotted mirror had as-

sured her that, even though Adolph did exaggerate she was undoubtedly fearfully homely. With such unpleasant thoughts she stumbled along, heedless as to where she was going until she was arrested by a gay, young voice saying, "You're not going to run over me really, are you my dear?"

Rory looked up straight into the bluest of blue eyes with little golden tendrils of hair blowing into them. The eyes were smiling at her and so was the small, red mouth. Slowly the scowl vanished from Rory's face and she smiled back. The effect was so startling that Margaret Sercomb cried out in delight.

"Why, how beautiful your smile is!" she said. "Just now it seemed like a flash of sunlight. My dear, that smile should be used to brighten everything about you."

Rory stood silent with amazement, looking after the older girl as she passed on her way. Something about her had been called beautiful. As she watched, Rory saw that everyone who met Margaret Sercomb had a smile for her. What if people would smile at her like that! Stirred by this new longing she turned and followed Margaret until she entered her home. The door had scarcely closed upon her when Rory's hand was on the bell. Margaret herself opened the door.

"What makes everybody smile at you?" blurted out Rory.

For answer Margaret drew Rory into the room and placed a mirror in her hand. Rory met so fierce a frown in the reflected face that she drew back.

"Now smile," commanded Margaret.

Rory affected a smile. When she saw the difference it made she smiled with real joy and the transformation was such as to make her lay down the mirror, flushed with delight.

"I—I didn't have any idea," she stammered.

"People's faces are something like the mirror," said Margaret Sercomb. "You scowl into them and they give you back the scowl, but smile at them and they return the smile with interest."

It was not until she was at home again and Mrs. Hornberger asked for the butter that Rory recalled the errand upon which she had been sent.

"And here's supper to be ready in a little more than an hour and no butter! Company, too! Whatever can you be thinking about?" groaned Mrs. Hornberger.

Rory's face puckered into the familiar frown and her lips took on the sullen droop they wore when things went wrong. Then she remembered. Her smile flashed out at the angry woman, whose anger changed to amazement as Rory said in a voice sweet enough to match the smile:

"I'm so sorry, Mrs. Hornberger. I stopped at Miss Margaret Sercomb's to ask her something and that drove it out of my mind. But I'll go after it now. I'll run nearly every step of the way and I'll get back in plenty of time for supper."

"Land, child, I wish you would! You shouldn't be so careless, but since you have been you can't do any more than try to make it up."

"And thank you for not scolding me, Mrs. Hornberger," Rory called back as she hurried down the walk.

"Thanks me for not scolding her! Gracious, what's got into the girl? And to rush off like that to make up for an errand she's forgotten. If only Rory could keep this up instead of her old, sulky ways, she'd be real livable."

The next surprise from Rory came the following morning when Adolph and Amos began to tease her. This was a part of the daily program. Invariably it had led to a fiery exhibition of temper on Rory's part, followed by hours of sullenness.

"A red-headed churl  
A freckle-faced girl  
Is Rory, begorry!" sang out Amos as Rory started to

clear away the breakfast dishes.

Rory winced. Then the miracle happened. She turned and smiled at Amos. When she saw Amos' surprised face she laughed, and finding it easy to laugh she kept it up until Amos and Adolph joined in and peal after peal of laughter rang out from the dining-room.

"What are you laughing at? Is it my poetry?" demanded Amos suspiciously, at last.

"I don't know. I guess so," gasped Rory.

"Well, I don't really mean you're a churl, you know. You couldn't be since you can laugh like that. But there wasn't anything else I could get to rhyme with girl, so I had to use it," said Amos.

"There's pearl," suggested Adolph.

"That's so," admitted Amos, grudgingly.

"I'll fix it up right," said Adolph.

"An exquisite pearl,  
A beautiful girl,  
Is Rory, our Rory!"

The word beautiful applied to her again! What if it was only in boyish fun! She managed to flash another smile at Adolph and say, "Thank you, Adolph," before she escaped with tear-blinded eyes to her little room.

Each victory won made the following battle easier. Occasionally Rory was caught unaware but the thought of the transformed face in the mirror was sufficient incentive to keep her steadily advancing. And soon she found a new motive in the conflict—a motive that thrilled her with joy. She was making other people smile happily. From Mrs. Hornberger down to Baby Christine the people at home reflected her brightness. At school the girls were beginning to cluster about her just as they drew to the sunny window on a chilly day.

It was two years after that critical morning when she had first met Margaret Sercomb that Rory one day persuaded Mrs. Hornberger to go away for a two-days' visit and rest with her

sister. To console the children for the absence of their mother she promised to take them on a picnic in the woods. Moreover, each child was given permission to invite a friend to the picnic. So there was a scurrying of big and little Hornbergers all through the neighborhood while Rory did up the lunch, with plenty of sandwiches, so that even the hungriest boy could have still another after he had had enough, and pickles, generous slices of two kinds of cake, juicy peaches and plums, and lemons for lemonade.

It was a glorious picnic, one to be forever remembered. The best part of all came in the last mad frolic of the day. The children had made Rory their queen. They had unbraid her brilliant hair which fell in shining waves to the hem of her green dress. Upon her head they had placed a crown of glossy, green leaves. A green willow branch was her sceptre. As the children danced about her and did obeisance before her, Rory laughed at their antics until all were in a riot of merriment. It was at the height of the fun that a young man strolling through the woods stopped to watch the party, gave a gasp of amazement as his gaze fell upon Rory, and then approached, hat in hand.

"Pardon me," he said, addressing Rory, "But aren't you the young lady that is now about here as 'Radiant Rory'?"

"My name is Rory—Aurora, really, but everybody calls me Rory. The other part of the name I never heard applied to me," answered Rory pleasantly.

"Well, if your name is Rory then you're 'Radiant Rory' all right! Gee! They told me you had a head of flame and a smile that would put your namesake to shame, but I didn't expect this!"

"I know I'm disappointing," said Rory, humbly. "But I'm just naturally homely and I'm trying to make the best of it."

"The best of it!" The young man

was convulsed with mirth. "Excuse me for laughing," he said when he could speak. "But you've made the very best job of it I've ever seen. Maxie told the truth. You're—no, you're not either. I was going to say you're beautiful. You're not that. You're more. You're a wonderful, radiant being, a thing of flame and light and warmth. It's not on the surface alone. It comes from the inside. Why, what is it? Girl, what is the matter?" For Rory had thrown herself upon a hillock and was weeping as though her heart would break.

"It's—it's so wonderful to be called all those things when one has tried so all one's life just to bear being homely," gasped Rory between her sobs.

"Say, I want to tell you something," said the man. "I came clear across the continent to find you. Heard of you 'way off there. Maxie spent a few days last month at the hotel up here on the lake and he saw you and heard all about you. He spotted you as the one girl in the world that would do for the central figure in my new painting. I'm an artist, you know. Got a big commission now. And you, in that green dress with the crown on your head and that flaming mass of hair, are just what I've got to get into that picture. I want to ask your mother if she'll let me, and I've brought along my mother so that everything will be ship-shape. Can we call on your mother very soon?"

"I haven't any mother," replied Rory. "I'm an orphan and live with Mrs. Hornberger to help her with the work."

"Say, you never mean it! Would you hate to leave Mrs. Hornberger? O, say, just wait! I'm going home to have a talk with my mother and then we'll be over to see you tonight."

True to his promise, Dick Maynard and his mother called on Rory and Mrs. Hornberger that evening, and before they left they had the promise that Rory should go back to New York with them as a companion to

Mrs. Maynard, and to do her part in bringing to perfection that wonderful picture, "Tomorrow," that Richard Maynard had under way.

"It'll be best for her," sobbed Mrs. Hornberger. "You'll give her an education and take her traveling and make her lot easy, while I've had to make her work awfully hard, but you won't love her any more than I do. And it seems as if the light of this house will go with her. I can't tell you how we'll miss her happy face and beautiful ways, and so will the whole town for that matter. It'll be a dull place around here without her."

Upstairs, crouched at the window in her attic room, was Rory, gazing at the starry heavens as she murmured, over and over again, "Thank you for love, dear God."

#### A PLEASANT MEMORY.

BY H. C. KEGLEY.

The fragrant breath of new-mown hay  
Took my thoughts back the other day  
To when I was a gawky jay  
And owned some goodly flocks.  
I farmed an eighty in the dale  
Just south of Ezra Meeker's trail,  
And there I cultivated kael  
And prunes and Plymouth Rocks.

My Poland Chinas there waxed fat,  
And paid for my wife's Easter hat,  
And if my small grain all went flat  
'Twas harvested two ways.  
My ganders crawl-stroked in the creek,  
My Jersey cows grew plump and sleek,  
I laid my corn by once each week.  
Ah "them was happy days!"

But, like a lot of other folks,  
I gave my yens to oily "blokes"  
For patent rights and cowless pokes,  
And then my woe began.  
I wish I had not moved away.  
While farming I was called a jay,  
But you can bet a ton of hay  
I was a happy man!

The reason why men succeed who mind their own business is because there is so little competition.—Crawford.

I hope that your hearts will never get so dry and hard that they will not beat responsive to noble deeds even if they are not exactly prudent.—Munger.

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Write to 501 Bowles Building, Detroit, for premium lists and other information.



# Woman and Her Needs

## At Home and Elsewhere



### Why Not Let Father Help?

**E**LSEWHERE in this department I have been taken to task by a reader who accuses me of over elimination of work in the household. Reading between the lines, I think I see a tired mother who thinks.

"Oh, it is easy enough for someone to sit in an office and write that sort of stuff. But what does she know about it? She never had to get into a kitchen and cook and dig and take care of a crying baby, etc., etc."

Wrong, because she did, and does, although the crying baby is now past the teething stage. And it is because I went through the grind and made the mistake of trying to do it all that I am now advising other women to do less, at least while the children are little.

"Would you get the dinner and be ugly, or let father go without dinner and be sweet?" pertinently inquires the writer.

I did get the dinner and was ugly, a regular virago on especially bad days, and everybody got dyspepsia as well as a "dressing out."

I would, if I had it to do over again, let father go without or get dinner himself, if I could not do it except at the expense of strength, temper and nerves. On bad days why should not the father who can not pay for help, assist the mother, who is taxed beyond her strength? Of course, a husband likes to have a good meal waiting him, and under normal conditions he is entitled to it. But abnormal conditions arise in every home when children are small, and it is an injustice to expect the mother, already weakened by child-birth, to meet the conditions unaided.

The average American husband will do about as he is trained. If the wife begins by being self-sacrificing and unselfish and willing to carry more than half the load she may do so all her life. If she assumes that she is the weaker vessel and must be taken care of, husband takes his cue and helps her when necessary.

As to factory-made garments. I, too, had formerly the same idea, that the writer of the letter holds. I could buy enough percale for two suits for the small boys, with the money I would have to pay for one ready-made. Therefore, I argued, it is cheaper to sew. Later, I came to think that the time it took to make the suits plus the money paid a doctor as the result of overwork, plus the cost of the percale made home-made garments more expensive. If a woman has strength and counts her time nothing, it is cheaper to sew. If she is delicate and over-worked, a home-made garment is a luxury.

As to the twelve-year-old girl, why should the mother need to make her garments, beyond the cutting and fitting? In the long summer vacations she should be able to do the rest alone, and she ought even to cut her own school dresses. My mother frequently tells me she has done all her own sewing ever since she was ten years old. While her daughter cannot make the same proud boast, if there is ever a granddaughter the second generation will revert to type. A healthy twelve-year-old girl should be of untold help to her mother. That more of them are not is a shame to

the mothers and a crime against the girls.

Far be it from me to advise anyone to get out of working. A sane amount of work is the salvation of the race. But it seems to me that some women are insane on the subject. The less fitted they are to work, the more their conscience or egotism or nerves goads them on to do. Babies quickly grow up. Why not slight things while they are growing, and "keep sweet?"

DEBORAH.

#### LETTER BOX.

Dear Deborah:—Your articles usually "hit the spot" with me, but the last one causes me to make a protest and I am using a part of my after-dinner rest hour to make it. You have said in various ways at various times that the woman who tries to do all the sewing for her family is extremely silly. It is impossible to buy, ready-made, a dress for a girl of 12 years, that is worth carrying home, for less than a dollar. The cloth for two can be had, good cloth, too, for that price. Frequently after the ready-made dress is purchased it fits so little that it has to be nearly made over or if left alone is an eyesore as long as it lasts.

For 25 cents I can get the best apron gingham, sufficient to make a good generous apron. It would cost me at least twice that to get one ready-made and it is my experience that the goods used in ready-made articles fades very much worse than goods bought by the yard.

You say a sweet temper is to be prized above everything else. Let us "suppose" a case. I have been doing my washing, which I am very much too poor to hire done, and it is time to get dinner. Baby is teething, and consequently very cross. I have had to tend him so much that my washing isn't half done. Now, with dinner to get, and I have no help, because I can't afford it, do you think John would be "sweet tempered" if I just tended baby and didn't get dinner? Or do you think he would rather have a flustered wife, plus dinner?

I can't keep good natured and do all I have to do, so I have to be bad natured a part of the time. I am not an angel any more than other women, and about so much work has got to be done. It would be lovely if we could always rest when we got tired, but resting won't cook dinner or darn the socks. And as long as a very large majority of us are poor I don't see how we are going to get out of working, which is about what your suggestions amount to in the end. And the work someone else does for us is never as well done as we would do it, whether it is factory canned goods or factory made wearing apparel.

I hope you will print this, and that some of the other sisters will give us their opinions.—Mrs. F. L. S.

#### SOME APPETIZING SALMON DISHES.

BY CLAUDIA BETTS.

The woman on the farm, even more than her city cousin, welcomes the addition of any way for the cooking of the convenient canned salmon. One original way that seems to be a

favorite with our own family and our guests as well, is:

**Fried Salmon.**—Put a generous lump of butter, or half butter and half lard, in a frying pan. Remove the bones from a can of salmon, rinse the can with cold water and add to the fish. Add about the same amount of rolled cracker crumbs or bread crumbs as you have fish, salt and pepper to taste. Brown nicely, being careful not to let it burn. This is very quickly and easily prepared and is delicious.

**Scalloped Salmon.**—Make a white sauce by using four tablespoons of butter and four of flour, two cups of milk, and salt and pepper to taste. Place a layer of salmon in a baking dish, then a layer of rolled cracker crumbs and a layer of white sauce. Repeat until all are used. Bake about half an hour in a moderate oven.

**Salmon Loaf.**—Use one can salmon, one-half cup bread crumbs, one tablespoon chopped parsley, three eggs, four tablespoons melted butter, and seasoning to taste. Drain off the liquor and remove the bones from the salmon, add the crumbs, butter, parsley and seasoning, then the yolks of eggs and lastly the whites beaten to a stiff froth. Turn into a buttered dish and bake half an hour. Serve with or without a sauce.

**Salmon Cutlets.**—To make them, remove the paper from a can of salmon, then place in a kettle of boiling water and boil 10 or 15 minutes. Remove from can, drain off the oil and flake the fish. Make a pint of drawn butter sauce, add the flaked fish and form in the shape of cutlets, saute in hot fat and serve at once, garnished with parsley. To make the drawn butter sauce use one-third cup of butter, one-half cup water, three tablespoons of flour, one-half teaspoon of salt, a dash of pepper, mix flour, salt and one-half teaspoon butter and the water and stir until the sauce boils, add the rest of the butter in bits, stirring until absorbed.

#### HOME QUERIES

**Household Editor:**—Will someone please tell me how to take care of inlaid linoleum? Can it be varnished?—Mrs. M. E. W.

The linoleum should be washed two or three times a week with a suds made from some mild soap. It can be varnished, and this is said by some to prolong its wearing qualities.

**A. C. B.**—For dill pickles prepare the cucumbers in a cold brine as for sour pickles. Then scald in vinegar, pack in jars with dill leaves scattered through, pour the scalding vinegar over and seal.

**Household Editor:**—I wish some of the ladies who take the Michigan Farmer would please send a recipe for making watermelon preserves.—Mrs. G. S.

Cut the rind in half-inch cubes and soak 48 hours in a weak brine. Drain off brine, rinse in clear water and cook in a small quantity of boiling water until transparent. Then drain again and cook for 20 minutes in a syrup made in the proportion of three-quarters of a pound of sugar and a half cup of water to every pound of fruit. The preserves are improved by adding to the syrup a lemon, sliced, for every pound of melons.

**Mrs. H. M. R.**—Following are the recipes you requested:

**Sweet Cucumber Pickles.**—Arrange one peck of cucumbers in a jar, then

sprinkle two cups of salt over them and cover with boiling water. Let stand over night, pour off brine and place cucumbers in a granite kettle. Cover with moderate strength vinegar to which has been added four cups of sugar and an ounce each of whole cloves, stick cinnamon, broken in pieces, and mustard seed. Remove from stove and seal the instant the boiling point is reached.

**Sour Cucumber Pickles.**—Put cucumbers in a cold brine, using one cup of salt to the peck, and enough cold water to cover. Pour off brine at the end of 24 hours, scald and again pour over the pickles. At the end of another day, scald vinegar enough to cover the pickles with a bit of horseradish and three or four peppers. Scald the pickles in this and seal.

**Mrs. W. D., Lowell.**—The following recipe for canning corn will, I believe, be found quite satisfactory. If care is taken in cooking the corn the required time, and if it is put into properly sterilized cans and sealed with perfect tops and rubbers, there is no reason why it should not keep. If women the country over would spend the money they use buying canning compounds in buying new rubbers each year and new tops when old ones become cracked, there would be no need of any preservative in fruits and vegetables.

To 13 cups of corn, add a scant cup of salt and one cup of sugar. Boil hard for at least 20 minutes, stirring to keep from burning. Put in glass cans and seal up like fruit is canned. Be sure that it boils and boils.

**Mrs. F. G., Portland.**—Your recipe for sweet pickles was received, and we thank you for your courtesy in sending it. We are not using it, however, as it advises the use of both alum and saccharin, which substances have been condemned repeatedly by government analysts. If care is used in cooking the pickles, and they are not allowed to boil, there is no reason why they should shrivel if no alum is put in to harden them.

**Household Editor:**—Can you give me some hints about canning plums, peaches and pears?—Beginner.

**Damson plums, greengages and yellowgages** take about one and a half cups of sugar to the quart of fruit. Wash the plums carefully, prick each one two or three times with a sharp fork and arrange in layers in the kettle with the sugar. Let stand over night, then in the morning bring slowly to the boil and let simmer until tender. Peaches, of course, should be thinly pared, by pouring scalding water over them first and removing the skins with a sharp thin-bladed knife. For every four quarts of fruit allow two cups of sugar and four of water, make a syrup of sugar and water, add the fruit and cook slowly until tender. Seal at once, pouring over the fruit with which you fill the can, enough syrup to fill to overflowing. Pears may be canned as peaches, but before putting in the syrup cook in clear water until tender, then simmer in the syrup for five minutes. Of course, you must be sure in canning to have good rubbers and tops. After filling the cans and tightening the cover turn the can up to be sure no juice can run out.

**Household Editor:**—Can anyone tell me how to use olive oil for the hair? I have heard it will make hair grow thick. Any information will be appreciated.—M. E. B.

Household Editor:—In one of your issues last spring, you published directions for making large black beads. Having lost the issue, I wonder if you will be so kind as to repeat the recipe?—M. R.

Mix one-third of a cup of cornstarch with water to make thin paste. Put in the coloring. Now put one cup of fine table salt, being sure it is very fine, on the stove in a small pan. Stir constantly until it gets as hot as possible without burning. Stir the starch into the salt well. Now mold, by rolling with hands, into beads the size of a pea, although other sizes and shapes are just as pretty. Put a pin through the center of each bead. A shoe box cover is a very good thing to stick them into to dry. The coloring is quite an important feature. Water colors are the best, but bluing, fruit coloring and black ink can be substituted. Pure white ones are very pretty. String them with smaller beads, steel or gold.

Household Editor:—Is there any way to "do up" muskmelon?—L. T.

Muskmelon butter is liked by many. To make it, pare the melons, scoop out the seeds, cut in pieces and cook until tender. Then mash as fine as possible, add three-fourths pound of sugar for every pound of pulp, the juice of two or three lemons, cinnamon and nutmeg to taste, and boil, stirring constantly, until thick.

Household Editor:—How do you cook the small summer squashes?—M. H.

Cut small squashes in half, scoop out the seeds, pare and parboil until tender. Then drain and fill with a stuffing made from one cup of bread-crumbs moistened with milk, a beaten egg, a little minced onion and a quarter of a cup of grated cheese, if you are fond of cheese. Season with salt and pepper and bake until the squash is tender all the way through.

Household Editor:—Can you tell me how to rid my pantry of small red ants?—Mrs. R. N.

Try one teaspoon of tartar emetic in a saucer of sweetened water. Set where the ants come, out of reach of small children.

#### SHORT CUTS TO HOUSEKEEPING.

To make a heater of a gas, or gasoline plate, take a piece of stove pipe a foot in length. Cover one end with a piece of tin—a lard bucket cover will do—and place the other end over the flame of the hot plate. This contrivance warmed a neighbor's bathroom last winter and at the same time heated water for shaving.

A pound of cheap bar soap dissolved in a gallon of boiling water and added to about five gallons of thick whitewash will give it a gloss like oil paint. Silicate of soda in the proportion of one to 10 of whitewash produces a fireproof cement.

Many women can not use powder without its showing and yet, in summer their faces look shiny and unclean even after most thorough washing. To one-half pint of rosewater add three tablespoonfuls of epsom salts. Let stand until the salts have dissolved, pour a few drops into the hollow of the hand, and rub over the face. Pat until dry. This is a skin tonic and in no way injurious.—L. M. T.

Those wishing to redress old furniture often find it hard and tedious work to remove the old varnish. The slow and tiresome use of sand paper may be avoided by mixing a third of a cup of common baking soda in a pint of warm water and applying this with a stiff brush. Then rinse and allow the surface to dry thoroughly before applying the new coat.

To remove rust from steel rub sweet oil well on the rust spots and in 48 hours use finely powdered, unslaked lime and rub until the rust disappears.—L. N.

A lump of alum the size of a hen's egg in the paste for an ordinary-sized room will make the ceiling paper stick.—D. L. M.

## Grange.

Our Motto—"The farmer is of more consequence than the farm, and should be first improved."

#### ANOTHER GALA WEEK.

Those who remember the great "Gala Week" in Adrian, Mich., last fall will be interested to know that plans are already under way for a similar undertaking next fall, but on a more extensive scale. This event included a joint celebration by the Grange of Lenawee county and the Commercial Club of Adrian, resulting in a great occasion, which exemplified in a striking way the possibilities of getting together, city with country.

The same general lines will be followed this year as last, but there will undoubtedly be a larger crowd, a longer parade and deeper interest all down the line. Many will remember the Pomona Grange headquarters in the Lenawee County bank, which was handsomely decorated for the occasion, and where hundreds of Patrons were made to feel at home. The bank is already in the field with a brand new attraction for Gala Week, which will be held October 7-10 of this year.

The offering made by the Lenawee County bank in an announcement recently includes \$320 in cash prizes for an agricultural exhibit, which will be put in display in the bank building during that week. The liberality of the prizes offered promises to bring out one of the finest displays of Lenawee grown products ever seen locally.

The entire bank will be given over to the exhibits on the days mentioned and the bank will offer the \$320 in 64 prizes. No entry fees will be charged. Exhibits will be restricted to products grown on Lenawee soil.

The bank will reserve the right in connection with the exhibit to retain all products placed on display. These will be sold at public auction to Gala Day visitors for the benefit of the Associated Charities.

#### AMONG THE LIVE GRANGES.

A Good Crowd attended the recent regular meeting of Belding Grange. Although the weather was sultry over 30 members were present. A number of applications for membership were read. Some discussion was had in reference to the big union Grange picnic held in Lowell on Wednesday, August 19, and a committee of three headed by W. B. Travis, was appointed to arrange for the appearance in the parade on that day, of Belding Grange as a body. Four were initiated into full membership. Mrs. Mark H. Brown, lecturer, called on M. L. Howe, who responded with a short and interesting talk on the wide discrepancy that exists between what the farmer receives for his products and what the consumer has to pay. He thought co-operation would benefit all parties. Thanks of the Grange were tendered to Mr. and Mrs. Earl Nash, of Grattan Grange, for services rendered during initiatory ceremony.

Allegan County Pomona met with East Casco and Ganges Granges at Leisure Corners, which is in the center of a wide awake and prosperous fruit growing section. The well prepared dinner and the following program were thoroughly enjoyed by everybody present. Vocal music, East Casco Grange; opening exercises; business session; suggestions for the county fair, L. C. Root; paper, Mrs. H. C. Dow; "Care of the Fruit Trees and Vines during the Year," F. M. Barden; instrumental music, Ganges Grange. Dinner. Music, East Casco Grange; "Gathering and Marketing the Fruit, from the Early Strawberries to the Late Apples," H. C. Dow; instrumental music, by Bert Miller; "Which is the Better Investment for a Young Man, a Twenty-year Endowment Life Insurance Policy or the Same Amount Invested in a Fruit Farm?" D. J. Round and Wm. H. Stickle; vocal music, East Casco Grange; "Are the Agricultural Colleges Educating 'Back to the Farm' or from it?" Messrs. C. B. Cook and Marshall Bugden; instrumental music by Ganges Grange.

The Sixteenth Annual Picnic of Gil-

ead Grange No. 400, was held August 13 in McMahan's grove at Gilead lake. Band concerts by the Bronson band, a ball game, and races, were features which added to the day's enjoyment. Following is the program, of which State Master Ketcham' address was a feature: Music, Gilead Grange Choir; invocation, Rev. Everington; address of welcome, Mrs. Geo. W. Lazenby; response, Mrs. I. A. Corless, Coldwater Grange; paper, Cleon Hoopingarner; solo, Glenn Martin; declamation, Arabelle Green; paper, Mrs. Melvin Clemm; duet recitation, Lucile Rupright; duet, Mrs. Earl Linn and Miss Mabel Beck; address, W. G. Cowell; recitation, Laura Harris; solo, W. J. Campbell; address, Hon. John C. Ketcham.

#### THE NEW GRANGES.

The number of Granges organized and reorganized from April 1, 1914, to June 30, 1914, both inclusive, was as follows:

Organized.	
California .....	2
Colorado .....	3
Indiana .....	1
Illinois .....	1
Iowa .....	3
Kansas .....	30
Maine .....	1
Maryland .....	2
Massachusetts .....	1
Michigan .....	5
Missouri .....	2
Montana .....	4
Nebraska .....	14
New Hampshire .....	1
New Jersey .....	1
New York .....	9
North Dakota .....	2
Ohio .....	10
Oregon .....	6
Pennsylvania .....	14
South Dakota .....	6
Washington .....	9
Wyoming .....	3
Total .....	130
Reorganized.	
Colorado .....	1
Massachusetts .....	1
Nebraska .....	1
Ohio .....	1
Pennsylvania .....	2
South Dakota .....	1
Washington .....	1
Wyoming .....	1
Total .....	9

#### COMING EVENTS.

Samaria Grange No. 1430, Samaria, Monroe county, will hold their annual picnic on August 29. J. C. Ketcham, Master of Michigan State Grange, will be present.

## Farmers' Clubs

Address all communications relative to the organization of new Clubs to Mrs. C. P. Johnson, Metamora, Mich.

#### CLUB DISCUSSIONS.

Discuss Live Stock Diseases.—The August meeting of Columbia Farmers' Club was held at "Woodland," the extensive farm home of Mr. and Mrs. Walter Reading. The subject for the day was "Diseases of the hog and tuberculosis in cattle." As Mr. Reading is a large dealer in cattle it was a great disappointment that the committee in charge neglected to secure a state speaker for the occasion. However, the company present handled the discussion with much profit from their various experience. Mrs. Jennie Neely read an article on "The Value of the Horse." Portions of the article by Mr. Pettit in the Michigan Farmer, on "The Army Worm," were read. Mrs. Hazel Brooks sang two solos in a most beautiful manner. Miss Effie Reading gave a short reading on "Modern Maids." Miss M. Crego told a story that brought forth a good laugh. Rev. Long spoke briefly on the war situation. Misses Dorothy Barstow and Effie Reading gave a piano duet and the company of over 50, including some guests, Mrs. W. F. Raven, of Lansing, and Mr. and Miss Carpenter, of Napoleon Club, were present. Supper was served to the guests of the Club on the pleasant lawn. Next meeting will be at the home of Mrs. C. M. Crego, September 12.—Maude Smith, Reporter.

Discuss the Ideal Home.—The Conway and Handy Union Farmers' Club met at the home of Mr. and Mrs. G. L. Adams, Friday, July 31. The Club was opened by music, after which Rev. R. T. Kilpatrick led in prayer. The first on the program was a paper by Mrs. James Wilkinson, "The Ideal Home, its Influence on Character Building." The home is influential in molding the characters of the members of it; whether the home be good or bad, we

seem to blame it for successes or failures of the lives entrusted to it. The ideal home must wield a more powerful influence. Home may mean refuge to one, to another a place of discontent and strife. At home one becomes his real self, and what he is in the home he will be in the world. Mrs. Wilkinson believes that environment must not receive all the credit for character; that heredity is responsible to a large extent. America is known as a country of homes, and we look to the homes for the safety of our government. Something holds one to the principals and teachings of the home. The influence of the home maker, the mother, is so great a factor in the home that one cannot get away from it. Sooner or later, memories of a good home and mother, may become influential for good in other homes. Mr. Rambo was not present in time to hear Mrs. Wilkinson's paper but later in his discussion of the topic he quoted the dictionary as saying: "A home is a place where we stay; a dwelling." Taken from the standpoint of building, he believes a house should be built with a view to convenience as well as comfort. There should be no useless rooms. But he believes whatever the house, the members of the household should be harmonious; comforts and conveniences would amount to little if the inmates could not agree. Character building depends largely upon the home, children should be taught morality.

The Home as a Moral Force.—The second topic, "Home, a moral force, versus a place to board and lodge," was opened by Rev. R. T. Kilpatrick. He said home was where "Two hearts beat as one;" the sunniest and cheeriest spot on earth. Some homes can be defined in that way, but many are the reverse. In an ideal home, the boy is not afraid of his father's voice and the mother has the confidence of her children. Too many young men and women are in boarding houses today who might be in homes of their own, but for the fact that home means a place of discontent, strife and woe. Mrs. W. M. Horton said a home as a moral force, requires more than food and lodging. Many stay away from home because the outside attraction is stronger and more pleasant. In the home there should be training that will tend to uplift the character. But many people in taking children into their homes seem to think they have done all that is necessary when they make them comfortable, etc. They pay little or no attention to the molding of the lives entrusted to them. Mrs. E. W. Burkhart said that as a mother she realized that the raising of children was a constant warfare against sin and immorality, and that a mother had her hands full. Mr. Adams said that he had been a guest in what he considered an ideal home and that the father and mother of that home were present. He asked that Mr. Frank Crandall, of Howell, be called upon. Mr. Crandall said they had brought up five sons and four daughters; their family, when at home, numbers 17, this number including grandchildren. Mr. Roosevelt, when speaking at the Agricultural College, said the home was the foundation of the government; that schools were auxiliaries to it. A home with children is certainly a heaven on earth, but the children shouldn't be expected to be any better than the parents. Good books and good pictures aid much in character building. Mr. Crandall feels that it is more necessary that boys and girls should be in the church service than in the Sunday school. While there are many who in later years turn back to the old home teachings, yet there are many who do not. Parents should never feel that the children are safe. Children bring joy into the home when they are little, but there is an added joy and blessing when they grow up. Parents should be pleased when children go into homes of their own, because home life is the greatest blessing on earth.

The Hygienic Value of Recreation.—Ralph Carr opened the discussion of hygienic value of recreation. He said recreation is a change from what one does regularly. While in college he took his recreation by cross country, it took extra time and caused him to study later at night, but felt that he was the better for it. One should get away from his work as often as is possible. A change of the trend of mind is as necessary as a change of manual labor. No matter what we do regularly it is apt to become monotonous. George Stow said some people need work for recreation. To the farmer a change of jobs is refreshing. To persons who are somewhat run down a doctor usually prescribes rest. We must be healthy and it is necessary that we change from our regular work as often as possible in order to keep our bodies healthy and tempers in good condition. Members answered to roll call by telling what made a house homelike. Club adjourned to meet with Mr. and Mrs. Clay Gordon the last Friday in August.—Mrs. Clay Gordon, Cor. Sec.

# Markets.

## GRAINS AND SEEDS.

August 18, 1914.

**Wheat.**—An easier feeling prevailed last week in the wheat market. Prices had gone down fully 6c from the high point, but on Tuesday this downward trend was suddenly stopped and an advance of 5c made. It seems to be the general opinion among dealers that as soon as exporting can be resumed under normal conditions, advances will be in evidence. The reason given for the decline was that wheat accumulations at sea-board points were getting very large, as shipping had temporarily ceased and to avoid further congestion dealers refused to take the grain at so high quotations as prevailed last week. Shipments are now being resumed and the outlet should aid the bulls in keeping the market firm, for while England has enough of the grain for immediate wants, other countries, like Belgium and France, are in want and stand willing to insure cargoes against war risks to secure them. Canada's crop of fall wheat is placed six points below the estimate of a year ago, and her spring wheat fields promise to run about nine points lower than in 1913. A year ago the price for No. 2 red wheat was 90c per bushel. Quotations for the past week are:

	No. 2	No. 1	Dec.
Wednesday .....	98½	98	1.04
Thursday .....	98½	97¾	1.03½
Friday .....	97	96½	1.01½
Saturday .....	94½	94	99½
Monday .....	94½	94	99
Tuesday .....	99	98½	1.04½

Chicago, (Aug. 18).—No. 2 red wheat 96½c; Sept., 94c; Dec., 99¾c.

**Corn.**—This cereal did not suffer the margin of reaction noted in wheat circles, although prices sagged a cent below the figures given a week ago, which loss was recovered Tuesday. Crop conditions here are favorable to better prices than with wheat; however, recent rains saved many fields and rendered general help to the crop. Offerings are quite liberal for the season. One year ago the price for No. 3 corn was 76½c per bushel. Quotations for the week are:

	No. 3	No. 3
	Mixed.	Yellow.
Wednesday .....	88	90
Thursday .....	87	89
Friday .....	87	89
Saturday .....	86	88
Monday .....	86	88
Tuesday .....	87	89

Chicago, (Aug. 18).—No. 3 corn 81½c; Sept., 79¾c; Dec., 70¾c; May, 71¾c.

**Oats.**—Liberal receipts of oats had weakened the trade which, with the easier tone of the wheat market, resulted in a cut of prices. But the reaction in wheat and corn put quotations higher on Tuesday. The important oat growing sections are now threshing and farmers seem to be anxious to get the grain to the elevators, early resulting in a temporary bearish feeling. Canada's crop report show that the crop on that side of the line went back over ten points during the month of July and that the crop is ten per cent poorer than it was a year ago. On this date in 1913 the price for standard oats was 44c per bushel. Quotations for the week are:

	Standard.	White.
Wednesday .....	45½	44½
Thursday .....	45½	44½
Friday .....	43	42½
Saturday .....	42½	42
Monday .....	42½	42
Tuesday .....	44½	44

Chicago, (Aug. 18).—September oats 45½c; Dec., 46c; May, 49¾c.

**Rye.**—Another advance of 5c was made last week. Demand is strong and the supply limited. No. 2 is quoted at 80c per bushel.

**Beans.**—Cash beans advanced another 25c. Crop conditions are not promising. Quotations: Immediate and prompt shipments \$2.75 per bu; October \$2.25. Chicago—Prices continue firm and demand steady. Pea beans, hand-picked, choice, are quoted at \$3.10; common at \$2.75 to \$2.90; red kidneys, choice \$3.50 to \$4.

**Cloverseed.**—All quotations are lower. The coming crop, however, promises to be small. Prime spot \$10.50; October and December \$11; alsike sales were made at \$9.

**Timothy Seed.**—Prime spot \$2.65 per bushel.

**Alfalfa Seed.**—Prime spot \$8.75.

## FLOUR AND FEEDS.

**Flour.**—Jobbing lots in one-eighth paper sacks are selling on the Detroit market per 196 lbs. as follows. Best patent \$5.95; second \$5.45; straight ton.

\$4.95; spring patent \$5.95; rye flour \$4.55 per bbl.

**Feed.**—In 100-lb. sacks, jobbing lots are: Bran \$26; standard middlings \$28; fine middlings \$30; coarse cornmeal \$33.50; cracked corn \$34.50; corn and oat chop \$30 per ton.

**Hay.**—Carlots on track at Detroit are: New, No. 1 timothy \$15.50@16; standard \$14.50@15; No. 2, \$14@14.50; light mixed \$14.50@15.

New York.—Market higher. No. 1 timothy \$24@25; No. 3 to No. 2 \$20@23.

Chicago.—Offerings light and the demand good. Choice timothy quoted at \$18@20 per ton; No. 1, \$17@18; No. 2, 14@16.

**Straw.**—Steady. Rye \$8@8.50; oat straw \$7@7.50; wheat straw \$7@7.50 per ton.

## DAIRY AND POULTRY PRODUCTS.

**Butter.**—Market steady, with prices unchanged. Extra creamery 28c per lb; firsts 27c; dairy 20c; packing stock 19c.

Chicago.—Market is firm with the price slightly higher. The supply of fresh goods is light and storage stock is drawn upon. Extra creamery 29c; extra firsts 28@28½c per lb; firsts 25@26½c; seconds 23@24½c; packing stock 19@20½c.

Elgin.—Market firm at 30c per lb., which is 1½c higher than last week.

New York.—The market is firm with prices slightly higher. Creamery extras 30½@31c; firsts 28@30c; seconds 26@27c.

**Eggs.**—Market is strong with prices advancing. Fresh stock sells at 23½c per dozen.

Chicago.—A firm feeling continues to exist. Quotations remain about the same. Fresh stock sells well. Miscellaneous lots, cases included 16@21c; ordinary firsts 18@19c; firsts 20½@21½c.

New York.—Market steady, with prices on fresh stock higher. Fresh gathered extras 27@29c; extra firsts 25½@26½c per dozen; seconds 21@23c.

**Poultry.**—Market quiet with broilers in most active demand. Prices are unchanged. Live—Broilers 18@19c per lb; hens 14@16c; ducks 14@15c; young ducks 15@16c; geese 11@12c.

Chicago.—The trading is good at unchanged prices. The demand is entirely local. Quotations on live are: Fowls 14c; spring chickens 15c; ducks good stock 12@13c; guinea hens per dozen \$3.50; spring geese 12@13c.

## FRUITS AND VEGETABLES.

**Fruits.**—Pears \$1.50@2 per bushel; plums \$1.50@2 per bushel; Champion grapes 15c per 4-lb. basket; peaches \$1@1.25 per bushel.

Chicago.—Michigan peaches 15@25c per 1-5 bushel basket; yellow \$1 per bu; Clapp's Favorite pears \$2.50@3.50 per bbl; Bartlett \$4.50@5 per bbl; Sugar pears \$3@3.25; Champion grapes 12½@13c per 8-lb basket.

**Vegetables.**—Home-grown cabbage, \$1.25@1.50 per bbl; new beets 65c per bushel; radishes 10c per dozen; home-grown green corn \$1@1.10 per sack; leaf lettuce 40c per lb; green beans 75c per bu; wax beans 75c per bu.

**Apples.**—Good stock in demand but poor is beginning to hurt the market. Transparent 75c@1; Duchess \$1@1.10 per crate, and \$2.50@3.50 per bbl.

Chicago.—There is a wide range of prices, due to difference in quality. Nice stock rules firm. Transparent \$1@1.25 per bushel basket; Duchess 90c@1.15; Transparent \$3@4.50 per bbl; Duchess \$2@4.25; Astricans \$2@3.50; Wealthy \$3.50; Strawberry Pippin \$3.25@3.50.

## WOOL.

Conditions surrounding the wool trade would not permit its being held down long, and last week's easy feeling gave way to riotous buying, which put the amount of sales far above the aggregate for any month for a long time past. The trading extended to all grades. Prices are generally stronger and the fleece wools are now being included in the activity, large blocks having been contracted for at good figures. At Boston unwashed delaines rule at 27@28c; Michigan unwashed combing 23@29c; do. clothing 23@26c.

## DETROIT EASTERN MARKET.

Business is increasing at the market, and on Tuesday morning all the stalls were full, with a large number of wagons standing about the curb. Buyers were out in good numbers. Celery 30c per large bunch; tomatoes offered freely at 65@80c; onions \$1.25@1.40; potatoes not plentiful at 95c; large cucumbers 30@35c per bushel; corn 60@65c per bag; thimble berries \$2.75 per 24-qt. crate; pears \$1.50 per bu; apples 75c@1.25 per bu; eggs 30c; butter 32c; loose hay \$16@18 per ton.

## THE LIVE STOCK MARKETS.

### Buffalo.

August 17, 1914.

(Special Report of Dunning & Stevens, New York Central Stock Yards, Buffalo, N. Y.)

Receipts here today as follows: Cattle 230 cars; hogs 90 d. d.; sheep and lambs 38 d. d.; calves 900 head.

With 230 cars of cattle on sale here today, Chicago reporting 20,000 and lower, Jersey City reported 60 loads and much lower, with the exception of a few loads of very prime strictly dry-fed Indianas, the cattle all sold from 15@25c per cwt. lower, and in many instances they were bid for at 40c per cwt lower, and tonight there are at least 40 loads of cattle here unsold, weighing from 1150 to 1350 lbs., and it looks like a dull outlook for the remainder of the week on all weighty cattle.

Prices broke badly in the hog division today, owing to liberal supplies at all western markets and right close to 100 double decks on sale here, about 35 loads put on the market that have been locked up here for several days past. It was a very dull and draggy market from start to finish, with all good grades selling at \$9.40 generally. Roughs \$8@8.25; stags \$6.75@7.25. Late market was extremely dull and fully 20 double decks going over unsold, with choice grades offered on late market at \$9.40, and no buyers for them. Market is still in an unsettled condition and we would advise buyers to be careful in the country.

The market was slow today on lambs and active on sheep. Prices quarter lower than the close of last week. Choice handy lambs selling mostly at \$8.50@8.75. We look for steady prices the balance of the week.

We quote: Spring lambs \$8.50@8.75; cull to fair \$6.50@8.40; yearlings \$6@7; bucks \$3@3.50; handy ewes \$5.50@5.75; heavy ewes \$4.75@5; wethers \$6@6.50; cull sheep \$2@3.75; veals, choice to extra \$11.25@11.50; fair to good \$10@11; heavy calves \$6@8.50.

### Chicago.

August 17, 1914.

Cattle. Hogs. Sheep.  
Receipts today..20,000 30,000 30,000  
Same day 1913..10,845 17,474 25,567  
Last week ....38,433 106,907 117,811  
Same wk 1913..47,487 156,321 119,152

A run of cattle 4,000 larger than the trade looked for forced prices 10@15c lower on bulk, below choice grade, the choice to prime kinds selling at steady rates. It was mainly a medium to merely pretty good grade of steers on sale and 4,000 range arrivals were competitors against the light natives. Range trade held steady. Packers and shippers showed keen favor for prime goods and a four-load drove of the A. W. Bragg steers, 1590 lbs., from Tuscola, Ill., sold at \$10.60, a new high price for the year. Other choice to prime grades went at \$10.15@10.50 and the bulk of good to choice handy and strong weights made \$9.50@10. She stock sold steady to 10c lower, canner cows and the best dry lots cows and yearling heifers showing an unchanged basis. Heifers topped at \$9.75. Bulls were 10c lower and calves went at 25c decline. Stockers and feeders were offered in more generous volume than for some weeks past, and these took 10@15c decline in prices. Hog market opened 10@15c lower and closed 15@25c below last week's closing rate. Shipping orders were unusually light and this was the strong bearish feature. Tops were made at \$9.30 for light butchers. Heavies topped at \$9.15 and butcher weights at \$9.25. Bulk of the run sold at \$8.85@9.15.

Sheep and lambs had strong declines, native sheep selling 15@25c lower, range sheep at 15c decline and native lambs went 25@40c down from last week, while range stock went at 15@25c decline. Only a few feeding lambs were here, these selling steady. Montana feeding lambs sold at \$7.40; native lambs topped at \$8.25 and rangiers at \$8.40. Ewes of best kind made \$5.75@6; breeding ewes sold at \$6.

The cattle market had a sensational advance last week, scoring 25@40c gain and standing 50@60c higher than two weeks ago, due to short general supplies and an urgency of demand which clearly demonstrated that killers are going to have use for every beef bullock coming into the markets for weeks ahead. Despite the high cost of beef the call for it is good in all quarters. There is scant Argentine competition in the east and the European war demands will not be needed to make this season's market practically the best in history. Inability to export meats is a handicap to the packers' European trade. Still, supplies in the United States are really not equal to domestic demands. Top steers sold up to \$10.50 last week. Many cleared about \$10, including yearlings at \$10.25 and stillers at \$10.25@10.40. Bulk of fat, handy and strong weights went at \$8.65@10.10,

and just a medium killing kind at \$8.25@9.15, with the plain light steers down to \$8.15@8.40, and only a grasser grade below \$8. Range steers sold up to \$9.65, the bulk at \$8.10@8.85 and range heifers made a record at \$8.45. She stock sold at 25@35c advance, bulk of fair to good cows at \$6@7.25, prime up to \$8, and only a plain kind at \$5.50, while canners and cutters brought \$3.50@5. Bulls sold at \$5.75@8 for common to choice, bolognas mainly at \$6.40@6.85. Calves were firm at \$11@12 for common to prime. Feeder cattle scarcity forced 25@35c advance, bulk of the medium to good steers making \$7.15@7.75 and choice landed up to \$8.25 with only a tailing stock kind at \$6.50@6.85.

Hogs had a fluctuating market all last week. Opening at \$10.20 for tops on a 45@60c higher deal; prices declined 75@80c in the next two days, owing to an increase in receipts brought out by reason of the sharp advance. The market later reacted a little, but lost the advance before the close. Last sales were 75@80c down from high point at the start of the week, and pigs showed a flat \$1 decline. At the finish top lights and butchers sold at \$9.40 and spread of \$8.95@9.25 took the bulk while a poor class of heavy packing sold down to \$8.50 and pigs at \$8@8.75.

Sheep and lambs sold on a lower basis than the week before, due to a big increase in receipts. Choice native lambs sold up to \$8.75 and rangiers at \$8.65, while \$7.25@8.60 took common to good natives, with a cull class down to \$6.25. Range feeding lambs sold at \$6.75@7.50. Native wethers topped at \$6.25 and plain to choice rangiers made \$5.65@6.10. Yearlings sold up to \$6.65 and feeding yearlings at \$5.60@6.10. Poor to choice range ewes brought \$4.50@6.10 and best native ewes \$5.85@6.10 with a cull class at \$3@4.

Horse marketings were small and trade tone dull at prices unchanged from rates recently noted. Total run for the week was 713 against 716 the week before and 1226 a year ago. City demand continues quiet, although better outlet is looked for when the fall trade opens up. Few horses are going to the east and the drafters and heavy chunks are getting the best action. Mule trade is practically at a standstill all over the country because of the inactivity in exporting cotton. Few drafters went above \$225 but tops were quoted up to \$260 and higher. Loggers brought \$165@225, a common to good kind of drivers \$100@200, and the 1250 to 1400-lb. expressers sold at \$85@200.

## LIVE STOCK NEWS.

Shortage of live stock rather than the European war, has been the factor forcing prices to sharply higher levels in recent weeks. Higher cost of old corn, due to the droughty condition which has faced a big share of the crop for some weeks past, is another influence. As yet there has hardly been a ripple in the trade as a result of European war orders. Argentine and Australia will be the natural supply depots for meats to feed the warring armies of Europe. The United States has long been shy of a really requisite crop of live stock to feed its own people.

There are sections in Illinois, and Missouri, as well as Indiana, where rain has not been had for weeks past. In those spots a mere shadow of a corn crop is in prospect. Grass is poor and there is slight chance for good fall pastures unless rain is had in the near future. Such a situation facing cattle feeders makes them wary to come into the market and buy feeding stock at current prices. It is a certainty that the price of corn will hold at a lofty level all fall and winter and tendency of feeders is to hold off the market in expectancy that dry weather in the west will send a lot of thin steers to market and force the prices down.

All reports from the western range territory are that cattle are rolling fat right now and grass is curing nicely. This will mean a quick hardening of fat and an early movement of the bulk of range steers into the market. That packers will welcome a generous range run is significant by the free early season buying of westerns. In the past week a train of range steers from Montana sold at \$8.85 and one load up to \$9.65.

Hog growers are taking a bullish view of the fall market. The belief exists that war orders will come freely within a short time and packers having small supplies of smoked and salted meats in their cellars will be big buyers of hogs all season. A recent bear campaign in the market which netted packers declines of 50c in two days, from previous high point this year, was followed by a speedy uptrend, in which the sensational advance of \$1.50@2 in prices was made within a week's time. There are many predictions now that hogs having passed the 10c line will sell at 11c before the summer crop is marketed.

## THIS IS THE LAST EDITION.

The first edition is sent to those who have not expressed a desire for the latest markets. The late market edition will be sent on request at any time.

## DETROIT LIVE STOCK MARKETS.

## Thursday's Market.

August 20, 1914.

## Cattle.

Receipts 1318. Good dry-fed and canners steady; others 10@15c lower than last week.

Best heavy steers \$8.50@9; best handy weight butcher steers \$7.25@8; mixed steers and heifers \$6.75@7.25; handy light butchers \$6.50@7; light butchers \$5.50@6.50; best cows \$6@6.75; butcher cows \$5@5.75; common cows \$4.50@5; canners \$3.25@4.25; best heavy bulls \$6@6.50; bologna bulls \$5.75@6; stock bulls \$5.25@5.50; feeders \$6.75@7.25; stockers \$6.25@6.75; milkers and springers \$4@8.00.

Bishop, B. & H. sold Bresnahan 1 heifer wgh 580 at \$5.25, 3 do av 580 at \$5.25; to Goose 11 cows av 953 at \$5.50, 19 butchers av 576 at \$5.50; to Shapero 1 cow wgh 880 at \$6, 1 do wgh 1290 at \$7; to Sullivan P. Co. 2 do av 1060 at \$6.10, 1 do wgh 1040 at \$5, 1 steer wgh 800 at \$7.35; to Mich. B. Co. 4 bulls av 1007 at \$6.25; to Sullivan P. Co. 11 steers av 843 at \$7.35, 2 cows av 775 at \$6, 3 steers av 1253 at \$8, 2 cows av 1190 at \$6.25, 6 steers av 971 at \$7.65, 2 cows av 955 at \$6.50, 7 do av 750 at \$5.65, 2 do av 800 at \$6.75, 20 steers av 931 at \$7.50, 3 do av 1053 at \$8, 2 cows av 1190 at \$6.25, 6 steers av 971 at \$7.65, 2 cows av 955 at \$6.50, 4 butchers av 805 at \$7; to Grant 8 do av 700 at \$5.65; to Bane 8 stockers av 624 at \$6.50; to Brown 9 do av 445 at \$6, 15 do av 570 at \$6.50; to Bowersox 8 cows av 890 at \$5.65; to Hammond, S. & Co. 7 steers av 1010 at \$8, 2 cows av 1065 at \$6.50, 3 canners av 900 at \$4.25, 3 cows av 1153 at \$5.50; to Rattkowsky 5 cows av 844 at \$4.65; to Ratner 10 heifers av 576 at \$6.25; to Parker, W. & Co. 6 canners av 750 at \$3.50; to Lamkin 11 stockers av 550 at \$6.75, 2 do av 415 at \$6.75; to Schlischer 13 butchers av 707 at \$5.50.

Spicer & R. sold Mason B. Co. 2 steers av 1290 at \$9; to Goose 2 butchers av 620 at \$6, 1 bull wgh 1270 at \$6.50, 3 butchers av 807 at \$4.75; to Kull 1 bull wgh 920 at \$6, 4 steers av 860 at \$7.40; to Watts 4 feeders av 900 at \$7; to Newton B. Co. 1 canner wgh 750 at \$3.50, 2 do av 830 at \$3.50; to Breitenbeck 17 steers av 909 at \$7.25; to Bliss 1 do wgh 830 at \$7, 3 butchers av 990 at \$6.40, 3 do av 590 at \$6; to Mason B. Co. 1 bull wgh 1120 at \$7; to Newton B. Co. 17 steers av 845 at \$6.50; to Watts 10 feeders av 829 at \$6.35, 4 do av 830 at \$7; to Breitenbeck 2 steers av 660 at \$7.25, 5 bulls av 852 at \$5.90; to Newton B. Co. 1 cow wgh 770 at \$5.50, 1 do wgh 860 at \$5.50.

Roe Com. Co. sold Bresnahan 9 cows av 968 at \$4.45, 6 heifers av 590 at \$6.25, 1 do wgh 850 at \$7.50; to Newton B. Co. 5 bulls av 962 at \$6.15, 4 steers av 750 at \$6.75, 3 do av 710 at \$6.75; to Findlay 2 stockers av 375 at \$6.60, 11 do av 556 at \$6.60, 1 do wgh 670 at \$6.60, 6 do av 625 at \$6.80; to Sullivan P. Co. 14 steers av 930 at \$8, 3 cows av 1057 at \$5.75, 4 do av 837 at \$4; to Grant 6 bulls av 500 at \$5.35; to Breitenbeck 9 cows av 900 at \$5.75, 6 heifers av 670 at \$6.80; to Sullivan P. Co. 10 cows av 1024 at \$6; to Findlay 3 stockers av 403 at \$6.60; to Kull 2 cows av 750 at \$6; to Goose 4 do av 1015 at \$5.15; to Grant 3 heifers av 640 at \$6.50; to Kamman B. Co. 24 steers av 944 at \$7.50, 2 do av 660 at \$6.85; to Parker, W. & Co. 2 canners av 800 at \$3.50, 4 do av 835 at \$4, 1 do wgh 990 at \$4.

## Veal Calves.

Receipts 577. Market steady with Wednesday; 50@75c lower than last week. Best \$11@11.50; others \$8@10.50.

Bishop, B. & H. sold Sullivan P. Co. 29 av 160 at \$11.50, 2 av 270 at \$9, 12 av 170 at \$11, 5 av 180 at \$7, 1 wgh 360 at \$8.50, 2 av 100 at \$8.50; to Hammond, S. & Co. 5 av 185 at \$11.50, 4 av 180 at \$11.25, 13 av 145 at \$11, 8 av 175 at \$10.50, 1 wgh 140 at \$9.50; to Shapero 4 av 180 at \$11.50, 5 av 165 at \$11.75; to Mich. B. Co. 11 av 190 at \$7, 4 av 230 at \$10.50; to Nagle P. Co. 3 av 150 at \$11, 3 av 130 at \$9; to McGuire 8 av 155 at \$11.50, 8 av 150 at \$11.50, 8 av 185 at \$11; to Nagle P. Co. 8 av 160 at \$11.25, 6 av 170 at \$11.50, 11 av 175 at \$11, 8 av 150 at \$11.25, 11 av 185 at \$11.25.

Spicer & R. sold Applebaum 7 av 180 at \$11.40, 4 av 145 at \$11.40; to Kull 2 av 205 at \$9.75, 2 av 205 at \$12, 8 av 160 at \$11.50.

Roe Com. Co. sold Sullivan P. Co. 1 wgh 320 at \$7; to Mich. B. Co. 1 wgh 180 at \$10.

## Sheep and Lambs.

Receipts 3835. Market dull. Best lambs \$8; fair lambs \$7@7.50; light to common lambs \$6@6.50; fair to good sheep \$4@5; culls and common \$2.50@3.50.

Haley & M. sold same 150 av 200 at \$9.40.

Spicer & R. sold Thompson Bros. 52 sheep av 85 at \$4.25; to Kull 5 lambs av 80 at \$8.25; to Parker, W. & Co. 10 do av 57 at \$6, 20 do av 55 at \$7.75, 13 do av 70 at \$8; to Mich. B. Co. 13 lambs av 65 at \$7.50.

Haley & M. sold Thompson Bros. 19 lambs av 60 at \$8; to Sullivan P. Co. 10 do av 55 at \$7, 63 do av 78 at \$8; to Parker, W. & Co. 7 sheep av 125 at \$4.75; to Newton B. Co. 18 lambs av 60 at \$8, 37 do av 70 at \$8; to Parker, W. & Co. 7 sheep av 100 at \$4.75; to Sullivan P. Co. 7 do av 140 at \$4.50.

Roe Com. Co. sold Sullivan P. Co. 12 sheep av 95 at \$4.50, 4 do av 120 at \$4.50, 12 lambs av 70 at \$8; to Barlage 84 do av 75 at \$8; to Rattkowsky 9 sheep av 105 at \$5; to Barlage 21 sheep av 80 at \$8.

## Hogs.

Receipts 2091. Market 5c higher; all grades \$9.35@9.40.

Bishop, B. & H. sold Parker, W. & Co. 700 av 200 at \$9.40, 200 av 150 at \$9.35.

Roe Com. Co. sold Sullivan P. Co. 325 av 200 at \$9.40.

Spicer & R. sold Hammond, S. & Co. 160 av 200 at \$9.40.

## Friday's Market.

August 14, 1914.

## Cattle.

Receipts this week 1429; last week 1567; market steady.

Best heavy steers on market \$8.75; best handy weight butcher steers \$7.50@7.75; mixed steers and heifers \$7@7.50; handy light butchers \$6.75@7.50; light butchers \$6.25@7; best cows \$6@7; butcher cows \$5@5.75; common cows \$4@5; canners \$3@4.25; best heavy bulls \$6.50@6.75; bologna bulls \$6.25@6.50; stock bulls \$5.50@6.50; feeders \$6.75@7.25; stockers \$6.25@6.75; milkers and springers \$4@8.50.

## Veal Calves.

Receipts this week 649; last week 527. Market strong. Best \$12@12.50; medium and common \$8@10.50.

## Sheep and Lambs.

Receipts this week 4345; last week 2637; market 25c lower than Thursday's close. Common bucky and half fat lambs very dull. Best lambs \$8.50; fair do \$7@8.25; light to common do \$5.75@6.50; fair to good sheep \$4@5; culls and common \$2.50@3.50.

## Hogs.

Receipts this week 3233; last week 2217; market 10@15c higher; all grades \$9.40@9.50.

## CROP AND MARKET NOTES.

(Continued from page 153).

is an average crop; potatoes good; fruit very light. Wheat 70@75c per bushel; oats 32c; barley 46c; eggs 24c. Too dry for plowing; busy with threshing. Oats in some places not coming up to last year.

## Missouri.

Phelps Co., Aug. 11.—Wheat was extra fine this year, threshing nearly all done, the yield averaging about 25 bushels to the acre. Rye was also good, but not nearly so much sowed as there was wheat. Hay was only fair and oats were very short. Corn will average a little better than a half crop is the prospect now. We have had very little rain since April. On August 10 we had about an inch and a half. Potatoes are retailing at \$1.25 per bushel. Fruit is fair, such as apples, peaches and plums. Apples 50c; peaches 75c@1; plums 50c. A good prospect for later apples. Eggs 14c; hens 10c; spring chickens 13½c; roosters 7c; ducks 8½c; geese 4½c; turkeys 15c; butter 20c; corn 74c per bushel; wheat, No. 2, 65c per bushel.

Vernon Co., Aug. 10.—Missouri is dry in this section at this writing; corn is looking very good, and would have been better with more rain. There is considerable threshing being done now. Wheat averaged at about 15@20c per bushel and oats from 20@30c. The hay crop is good, the bottom hay being extra good, making about two tons to the acre. Very little plowing done yet; a great many will be at it in another week. The apples have been damaged by a disease, something like bitter rot, and so a great many have fallen off the peaches, and also grapes. Not much trees. There will be a good many live stock being sold now. Eggs are worth 16c; butter 20c; oats 25c; wheat 65c; hay about \$6.50.

## Iowa.

Osceola Co., Aug. 11.—Threshing from the field is on in full blast and returns are not nearly up to expectations. There is good length to the straw but the heads are not well filled. Wheat is yielding from eight to 12 bushels per acre; oats from 25 to 40 bushels; barley from 23 to 32 bushels. Corn looks fine. Apples will be a fair crop but there are no plums. Pastures are short but there is a good prospect for cloverseed.

## Nebraska.

Cass Co. Aug. 10.—Rain that was

needed badly came the last of July. With the first rain came a very hard wind that blew down the corn very badly in this vicinity. Wheat threshing nearly over, yield 15 to 25 bushels per acre; oats 30@50c; hay is good. Fruit not plentiful. Some have started to plow, but weather is hot and the ground hard and not well wet down. Wheat 73c; oats 30c; corn 75c; hogs \$8.50; hay \$5@6; cattle \$5@7.50; apples \$1.25 per bushel; onions \$1; poultry 13c down; broilers 17c; butter 18c; eggs 15c.

Pierce Co., Aug. 8.—Corn is doing fine now, we have had three heavy rains in the last week; we needed them all and could stand quite a bit more. A fine crop of potatoes so far. As far as the threshing has gone the oat crop is heavy. No cloverseed has been threshed in this county. Onions are large and a pretty fair crop. No crop of apples to speak of; no pears or peaches at all. Some hogs have died with cholera and some have been vaccinated. Corn 60c; butter 25c; cream 26c; apples \$1.50; extra fine crop of hay.

Scotts Bluff Co., Aug. 7.—It has been extremely hot and dry. Ranges all burned up, resulting in an early heavy shipment of range cattle. The second cutting of alfalfa is about completed and the season's crop of this hay will be heavy. Grain yields will be only fair. Some stock being sold at about 8c; alfalfa hay \$5 per ton.

## South Dakota.

Meade Co., Aug. 7.—August has come in hot and dry; all crops are in need of rain. Harvesting is done and threshing is on. Sod oats threshed out 25 bushels per acre. Wheat yield is not as good as expected. Hay has been good and a great deal is being put up. Potatoes are doing well. There are a good many pigs in the country and they appear to be healthy and doing well. The apple crop will be far short of last year. Wild fruit is scarce. Peaches shipped in are selling for \$1.50 per box. Stock of all kinds is high, cows selling around \$75 and unbroken horses from the range bring \$50 each. Cream 23c; dairy butter 20c; eggs 12½c; hay \$8; oats \$1.25 per cwt. Field corn has good roasting ears.

## Colorado.

South Weld Co., Aug. 10.—Corn is looking fine, with prospects of a good yield. A good rain would help everything. Second cutting of hay in stack in good shape. Most of the wheat will be stacked here, the yield was good; also oats and rye good; potatoes look good; fruit almost a failure. Prices on all products are going up; farmers are organizing to sell their own cabbage; tomatoes are blighting, so will not be an average crop; beans look good. Quite a few of hogs and cattle in this neighborhood. Eggs 20c; butter 30c; butter-fat 32c.

## Washington.

Western Klickitat Co., Aug. 10.—Wheat harvest is finished and threshing is in progress. Hay, new, from \$8@12 per ton. Corn, beans, onions are good. Potatoes \$1.50 per bushel; cloverseed 15c per pound; quite an acreage of seeding being done. Oats good; stock is quite scarce and high, but is in good condition. Hogs more plentiful, and 10@11c per pound; fat lambs about \$4 per head. Apples, pears, prunes are plentiful. Peaches fine, but scarce. Butter 30c; eggs 30c; butter-fat 26c.

## A RAZOR SNAP.

A good imported German Razor at 35 cents sounds impossible, but while the present supply lasts the Michigan Farmer makes this remarkable offer.

The razors are made of the best German steel, five-eighth-inch blade, and black handle. We will not say just what these razors ordinarily retail at, as prices on razors vary with each dealer, but we have seen razors no better sold at \$1.25 and \$1.50.

Every man who shaves ought to have at least three razors as it is a proven fact that giving a razor is rest beneficial to it, and here is your opportunity to get a supply at very little cost.

So, only while our present supply lasts the price is 35 cents each, post-

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## A Strop Bargain, Too.

We also have a quantity of Presto All-in-One razor strops that dealers sold at \$1.00 each. These strops are made of finest horsehide leather and one side is treated with All-in-One solution which makes it possible to put a hair-splitting edge on the dull-est razor. It combines the strop and hone in one.

The special price on the strop alone, while the supply lasts, will be 35 cents, postpaid, but if ordered together with one of the above razors the price of both will be only 65 cents postpaid. Here is your chance to get a good razor and strop at less than half price. Send orders to The Michigan Farmer, Detroit, Mich.

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Right now is the time to order your Saginaw Silo. Then you will be sure to have it by filling time. Delay means uncertain delivery. And you want a Saginaw Silo.

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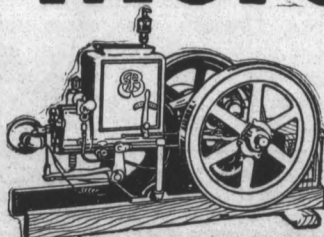
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# Farm Commerce.

## Packing for Shipment.

**W**HETHER has been around the great markets where produce is handled has been struck with the apparent carelessness with which some, or much, that arrives, is packed. Evidently many shippers do not realize the necessity of correct packing, or the need to make the packages solid and sufficiently strong to hold their contents and protect them from the vicissitudes of shipment.

Unquestionably, in many instances, the appearance of the package militates against the sale of its contents. For example, suppose a crate of cabbage is received. If the crate is firm, if it has held its contents closely and has prevented jamming, or other injury, all the contents are in condition to be sold immediately at the highest market rate for that type of goods. This is too self-evident to require explanation, yet probably one-half the packages of cabbages that arrive in the great produce markets are, in some way, insufficient to perform their purpose and the contents have suffered more or less, depending, perhaps, upon the distance it has been shipped, or upon other causes which might not apply in all instances.

### Strong Containers Required.

What is here said of cabbage applies with equal force to all other sorts of vegetables and fruits. They are all easily injured, all can be bruised by slight blows, or crushed by the shifting of the crates or the load inside. Why is it not better to provide a suitable package at the beginning and thus insure safe arrival? Surely nothing in the experience of any grower or shipper warrants him in believing that goods offered in poor packages are received in as good shape as they would be in good ones. And by the operation of the natural laws of supply and demand the best looking package will be the first sold and at the best price.

During the past few years the type of packages has changed materially and what were once accepted as proper are now refused by the best markets. In so far as this change has gone it is an improvement, but the opportunity for still further improvement is almost as great as though nothing had ever been done. Packages must conform to the types of goods. They must be, first of all, containers, but even the most cursory examination of a proposition of this character will force one to the conclusion that nothing in the necessity for containers militates against the equally obvious fact that these containers should be strong and capable of performing their duties. Furthermore, what is the reason that they can't look well? Why is it necessary to ship in dirty, or partially broken, containers? Why is it necessary to ship in something which is suitable only to kindle fires? Why is it necessary to make up containers which are disgusting to look upon and would prevent the purchase of the contents by anyone who would pay a fair price for the product? If any reason exists it has never been sufficiently emphasized to make it apparent.

### Profit by Others' Experience.

Any shipper could learn much to his advantage if he would take a leaf or two out of the experience book of the Californians, who have carried this art to a degree of perfection never before attained by anyone else. If any fault can be found with their packing the man to point it out has yet to be discovered.

The peach growers of Georgia have carried the operation of packing to a

very high state of perfection, so far as they have gone. The plan of packing in six baskets in a bushel crate is undoubtedly the best yet devised for the purpose of carrying peaches safely. Many other growing sections have already adopted the same plan, but Georgia has developed it more than any other.

Californians have devised methods of packing even so rough a product as celery in a way to make it appear attractive. It is put in crates between the slats of which the white stalks show in a very appetizing way. But before the Californians worked out the scheme, celery was packed in any old way. The difference is so obvious that it is not difficult to understand one reason why celery has grown so popular during the past few years.

### The Good Qualities Need Emphasis.

The western people have invented methods of packing apples which emphasize all the good qualities the apples possess, and apparently give them more. Of course, the apple packed in an attractive box under lace paper is no better than the one poured into a barrel, but it looks better, and that goes a long way in the sale. Not all consumers know enough about apples to appreciate the difference in flavor of the different varieties, but all can appreciate the difference in looks, and in this instance, as in many others, the eye is a controlling factor in a sale.

Indeed, it might be said without fear of contradiction that in a majority of transactions it is the eye which is the real salesman. No one can determine the flavor of fruit or vegetables until they are ready to be eaten, but a walk through the market will be sufficient to impress the potential buyer with the appearance of any product. Any package that is partially crushed, that is dirty, or ill shaped, will surely suffer in comparison with those which are attractive to the eye. A poor looking package may contain the best of fruits, but the average buyer will take a chance upon the contents of the package which looks the best. No doubt of this in any market.

### Growers Should go on the Markets.

Some growers are visiting the markets each year and are observing for themselves what happens when an offering is made. The experience is helpful and what the commission men and other dealers say is even more so. It is well worth what it costs and should be undertaken by everybody. Or, failing that, a neighborhood might band together and send one man with instructions to learn all he can about packing and what the market wants, and return with instruction for the others. It would thus be relatively inexpensive and everybody would benefit. Co-operation in this, as in other things, would be helpful and would lead to beneficial results.

Packing must be studied more thoroughly than it has been yet if it is hoped to secure the highest price for good shipped. It must be a part of the education of every grower and shipper, else the best results are quite impossible and the best prices are scarcely ever obtained. The time has passed for neglecting this important feature. The time has come for making it a part of the education of every man who grows either vegetables, or fruits, or both, for market.

New York. BURTON ALLBEE.

Alberta has been furnishing the Chicago market with some hogs, and a bacon house has been bringing in some Winnipeg hogs that did not do well on their long journey, shrinking fully 16 lbs. per head.

## PARCEL POST MARKETING TO BE ENCOURAGED.

A new method of salary computation for rural carriers throughout the country went into effect on the first of August as the result of an order promulgated by the Postmaster-General, in accordance with the recent act of Congress fixing \$1,200 as the maximum annual pay for carriers.

Heretofore rural carriers' salaries have been based solely upon the number of miles traveled, without any consideration being given to the time required or the amount of work performed by the carrier. Under the new method of computing his pay, the carrier must transport, per day, one parcel post package of the maximum weight, now prescribed by the regulations, or the equivalent thereof in any mailable matter, over the entire length of the 24-mile route heretofore recognized as a standard, provided that in the event of the failure of the carrier to carry the weight prescribed the carrier is entitled to the limit of compensation should it be shown by the department's records that he is handling an average of 400 pieces of mail daily.

It is also provided that on routes of less than 24 miles in length where carriers have been receiving less than \$1,100 a year, the former maximum pay, an increase or decrease in pay is to be made at the rate of \$12 a year for each thousand pieces of mail, or for each hundred pounds of mail handled monthly, not to exceed the maximum of \$1,200 a year. It is also provided that an allowance of \$12 a year shall be made for each closed pouch or sack of mail carried to post offices located on the rural route.

According to officials at the post office department, it is believed that this new method of computing salaries will inspire carriers to seek business and their friends along the route to patronize the service because, by so doing, they will help the carrier.

## THE CEREAL HARVESTS IN THE NORTHERN HEMISPHERE.

The International Institute publishes a supplement to the July bulletin of statistics, with the forecasts of spring cereals in Russia in Europe, and with the totals and numerical statements for all the countries in the Northern Hemisphere for which there are up to now official data on the current year's harvest.

The harvest of spring wheat in Russia in Europe is forecasted at 106,246,121 quintals, against 147,601,442 in 1913 (72.0 per cent), spring barley at 101,595,544 quintals against 119,699,933 (84.9 per cent), and spring oats at 123,421,933 quintals against 160,475,747 (76.9 per cent).

On adding these figures to the ones already published in the July bulletin, the following totals are obtained:

Wheat.—For the following countries together, representing about 70 per cent of the total production in the Northern Hemisphere, the production is forecasted at 668,962,270 quintals, against 692,602,550 in 1913, or 96.6 per cent; Belgium, Spain, England and Wales, Hungary, Italy, Luxemburg, Russia in Europe, Switzerland, United States, India, Japan and Tunis.

Rye.—For the following countries together, representing about 75 per cent of the total production in the Northern Hemisphere, the production is forecasted at 358,312,515 quintals, against 365,233,324 in 1913 or 98.1 per cent; Prussia, Belgium, Spain, Hungary, Italy, Luxemburg, Russia in Europe and Switzerland.

Barley.—For the same countries as in the case of wheat except India, representing about 60 per cent of the total production in the Northern Hemisphere, the production is forecasted at 217,922,187 quintals against 231,114,485 in 1913, or 94.3 per cent.

Oats.—For the same countries as in the case of wheat, except India and Japan, representing about 50 per cent of the total production in the Northern Hemisphere, the production is forecasted at 341,838,768 quintals, against 369,874,865 in 1913, or 92.4 per cent.

For Maize and Rice the supplement publishes harvest forecasts for the United States, viz. 728,500,680 quintals of maize against 621,559,422 in 1913 (117.2 per cent) and 4,694,760 quintals of rice, against 5,254,865 in 1913 or 89.3 per cent.

## NATIONAL CROP REPORT.

The month of July was very unfavorable for crops in the United States, the composite condition of all crops on August 1 being 2.0 per cent below their ten-year average, whereas on July 1 prospects were 1.4 per cent above the ten-year average; however, prospects are still 5.0 per cent better than the outturn of last year's crops, which were unusually poor.

The growing condition of the various crops on August 1, expressed in percentages of their ten-year average (not the normal) on August 1, and the improvement (f) or decline (!) during July, was as follows:

Wheat	118.7	f 2.0
Apples	113.3	f 5.2
Lemons	105.4	f .5
Grapes	104.7	f 1.2
Raspberries	104.7	f 4.3
Barley	103.9	f 5.8
Kaffir corn	103.8	f 4.1
Sugar beets	103.4	f .3
Alfalfa	103.4	f 2.2
Hay (all)	103.3	f 4.6
Peaches	102.9	f 3.6
Oranges	102.2	f 2.4
Beans (drying)	101.8	f 1.0
Cantaloupes	101.2	f .2
Millet	100.8	f .1
Hops	100.0	f 3.2
Broom corn	100.0	f 2.7
Buckwheat	99.7	...
Pears	99.7	f 10.3
Flax	99.4	f 4.9
Rice	99.1	f .8
Oats	98.1	f 2.9
Peanuts	97.1	f 3.6
Cotton	95.5	f 3.1
Cabbages	95.2	f 1.9
Potatoes	95.1	f .8
Tomatoes	93.5	f 4.2
Onions	93.4	f 2.0
Timothy	91.6	f 3.2
Blackberries	91.4	f .4
Sorghum	91.4	f 1.9
Pastures	91.3	f 2.5
Corn	91.3	f 10.0
Clover	91.2	f 6.1
Lima beans	90.9	...
Sweet potatoes	87.3	f 1.0
Sugar cane	85.3	f 5.9
Hemp	82.2	f 5.4
Tobacco	81.6	f 3.6

## LIVE STOCK NEWS.

While the influence of the great war upon business cannot be ascertained, there is already an indication that other neutral countries who have been dealing with any or all of the nations now at war, are coming to the United States for goods that they have been in the habit of purchasing elsewhere.

One day last week the packers broke the Chicago hog market 50c per cwt. It was Monday and tight money was the chief reason accredited as the cause of the bear raid. Big houses simply laid out of the market until a few eastern shippers had filled their wants. Then conditions were ripe for applying the lid, and prices forthwith dropped at the speediest pace noted in months past. It merely emphasized the grip which big buyers have on the market. The same day they broke the provision list terrifically, smashing lard futures \$1 and mess pork 80c. Packer domination of the provision pit has long been conceded and it's a daring speculator who goes into that market with the intention of playing the game in the opposite direction from that taken by the "big fellows."

John Clay, of Chicago, than whom there are few men with a better knowledge of live stock conditions, went down to the University of Illinois recently to discuss cattle affairs with members of the Illinois cattle feeders' association. Among other things he said: "Western cattlemen are going to produce more cattle than formerly. The readjustment is already starting in Kansas and Nebraska, where farmers are realizing that cattle raising is the best way there is of making a living. Packers are not responsible for the high price of beef; they are utilizing every portion of the carcass. Free trade is not influencing the price either. It is merely a question of supply and demand. America competes with the rest of the world in beef production and the price of beef is settled in London. Values of hides and of wool have increased since the duty was eliminated. The great west is ideally adapted for ranging and grazing cattle; the middle west is adapted for feeding, and every Illinois farmer should feed cattle."

Sheep and lambs were marketed in very meager volume last week and as a result of keen packer call prices scored 60@75c advance in the sheep trade, and fat lambs went \$1 higher at the close. A small supply of range lambs came forward and packers took natives freely as substitutes. From an early week top of \$8.10 native lambs advanced to \$9 on the close. Prime range lambs were quoted at \$8.75 and only a medium grade of natives sold at \$8.25, with the common light lambs down to \$7.50 and lower.

## Crop and Market Notes.

## Michigan.

**Saginaw Co., Aug. 14.**—The wheat crop is about all threshed and is turning out well. Every binder is busy on the oat crop, which looks fine, but does not yield as heavily as expected. Straw too big. The pickle factories have begun to take the cucumber crop. The hay crop is not so large as expected. Holstein-Friesian Club will make a trip to Howell August 20, to inspect cattle. Butter-fat 28c; eggs 18c per dozen.

**Ottawa Co., Aug. 12.**—The severe drought was ended by a rain on the tenth. Had the dry weather continued much longer potatoes, beans and corn would have suffered. Only a little plowing has been done. Cloverseed harvest will be small. Average yield of wheat will be between 20 and 30 bushels per acre. Oats are not yielding very heavy. Hay cut about one and a half tons per acre. Fruit prospects are not very good. Not many hogs being marketed at present.

**Mecosta Co., Aug. 11.**—The weather conditions have been almost ideal so that corn, potatoes, beans and new seedling are looking fine. Hay was a fair crop. Hogs are more plentiful than usual. Pasture has been good all summer. There will be a few late apples and pears, but no peaches and plums. The farmers sell so much of their cream that good dairy butter is not produced in large enough quantities to supply the home market. Butter-fat 24c; good dairy butter 30c; eggs 17c; chickens 14c; hens 10c.

**Delta Co., Aug. 9.**—The month of July was very warm and wet; crops look good; haying is all done, only about half a crop, owing to dry weather in June and June frosts; not much grain cut yet; oats and wheat a good crop; potatoes good where they came up; lots of missing hills in some of the fields; others with same kind of potatoes and same kind of seed and care are a perfect stand, only different time of planting. Not much being marketed now; fruit is a failure in some localities; half a crop elsewhere. Milch cows in good demand at \$70@80; pigs scarce and some are dying from cholera; new hay selling for \$13@14 a ton.

## New York.

**Niagara Co., Aug. 11.**—Corn is looking reasonably good for our continued dry spell. Potatoes will be good if rain comes. Wheat was a big crop; oats large acreage but light and short on account of drouth. Just beginning to harvest oats. Beans are fine and selling at \$1.75 per bushel. New potatoes \$1.75. Early apples are abundant but the Buffalo market is very low; the local market pays 50c per bushel and furnishes baskets. Good prospects for late apples; pears are fair but have needed lots of spraying; no peaches. Just picking plums and getting 10c a basket for 6 lbs. There is only half a crop. Prunes are very scarce. Butter and eggs 23c.

**Columbia Co., Aug. 11.**—Corn promises fair; potatoes, early, good; late need rain. Beans fair; not many onions grown, but very good. Some plowing done for rye. Oats are short but well filled. Hay half a crop. Apples, where sprayed, are good. No peas or peaches. Pear trees badly blighted. Timothy hay \$20 per ton; eggs 25c; fowls 14c; chickens 18c; potatoes \$2.50 per bbl; onions \$1.50 per bushel; cabbage \$3 per 100.

## New Jersey.

**Monmouth Co., Aug. 13.**—Corn, onions and potatoes look well; very few beans and no cloverseed at all raised here. Wheat and oats yielded well; hay was short. Less hogs and other live stock than usual; a good crop of apples, pears and peaches; apples sell for 50@80c per bushel; peaches 50c@ \$1 per basket; potatoes 55c.

## Pennsylvania.

**Montgomery Co., Aug. 10.**—Weather is very warm and is beginning to get dry. The corn and potatoes and garden truck look good, but if the present heat continues they will soon need rain; there is not much truck raised for market, except in some sections there are some tomatoes raised for the factory. Hay is a little better than was expected, on account of the late rains. Oats fair; not very much threshing done yet. Peaches, apples and pears look fair, not many marketed in this section. Not many hogs and live stock raised here. Butter 28c; eggs 25c; spring chickens, dressed 25c per lb; milk, at creamery \$1.45.

**Perry Co., Aug. 7.**—Corn promises to be 25 per cent above crops of the past two years. Potatoes are about half a crop, due to blight. Cloverseed looks promising, wheat is threshing from eight to 10 bushels per acre; oats from 18 to 32 bushels per acre. About a normal amount of live stock, except hogs, which are scarce. Pears and peaches are a fair crop; a light crop of apples. Eggs are 19c; butter 20c; wheat 75c; corn \$1; oats 45c; chickens, young 16c.

## Ohio.

**Hancock Co., Aug. 11.**—Threshing

out of field nearly completed. Wheat made a good average from 20 to 28 bushels per acre. Few fields below 20 bushels per acre. Oats made a fair yield. Some plowing done for wheat. Good rains came yesterday and Sunday, the first for several weeks. Pastures were short but starting nicely; corn looks good, although some may not ear up so well, the rain coming a little late. Apples and pears will make a fair crop. Peaches will make a small yield. Hogs are healthy with the usual number on hand; are selling at 9@9½c; wheat 86c per bu; corn 75c; oats 35c; eggs 19c; butter 24c; potatoes \$1 per bu; apples 60c per bu; timothy seed \$2.50; early clover looks good, but very little late, selling from \$7@8.

**Fairfield Co., Aug. 10.**—Very little rain in July and thus far in August. Corn and pasture are in bad shape. Wheat is yielding from 15 to 28 bushels per acre. Corn will not average over one-fourth of a crop. Oats are light; so is hay. Very little clover hay made, and cloverseed will hardly amount to anything. Apples are dropping more than usual and will be about one-half a crop. Peaches will be light but the quality promises to be good. Pears fair; potatoes light. Wheat 78c per bushel; corn 80@90c; oats 40c; rye 60c; potatoes retail at \$1; apples 50c per bushel; butter 25c; eggs 22c; peaches retail at 8c per lb; hogs 7½@8c; fat cattle are scarce at \$7@8½c.

**Shelby Co., Aug. 12.**—General rains have helped farmers. Early potatoes are scarce but looking good. Cloverseed will be about half a crop. Preparation for wheat seeding well advanced. Wheat yield is from 10 to 15 bushels per acre. Oats were a fairly good crop; hay averaged about 00 tons per acre. Hogs are high and scarce, and so are cattle. Apples and peaches a total failure here. Hogs \$9; cattle \$6@7.50; wheat 80c per bushel; corn \$1.02 per cwt; oats 34c per bushel; eggs 18c; butter-fat 25c.

**Harrison Co., Aug. 10.**—Very dry and everything is burning up; corn is badly injured. Wheat was very good, from 15 to 30 bushels per acre; oat 30 to 40 bushels; prospects for cloverseed very poor; no plowing done as yet, for wheat ground is too dry and dusty. Prospect for late apples very good; a good crop of early apples. There will be a good crop of pears; very few peaches; there are no buyers looking for fruit yet. Not many hogs grown for market in this county; butter-fat 27c; eggs 23c; no wheat or oats selling; pastures burned up and farmers are selling their cattle; fat cattle 7½@8c; potatoes not more than half a crop.

**Crawford Co., Aug. 10.**—We had a few nice showers the ninth, and are in need of more. Corn and potatoes had been suffering owing to the hot and dry weather; beans and onions are not raised as a market crop, only for home use; both are a fair crop and of good quality. Cloverseed will be a small yield; the wheat yield will average 20 bushels per acre. Some oats to harvest yet, and the crop is fair. Some farmers began plowing, but ground turns up hard. We must have rain before any sowing preparation can be made. Farmers are well stocked with live stock comparing with the feed pastures as they are drying up and cows are decreasing in milk yield. Price on butter-fat is one cent above Elgin; eggs 18c.

## Indiana.

**Noble Co., Aug. 11.**—We have been experiencing a very severe drouth, which has only been partially broken. Late rains have helped late potatoes and some of the corn which was not too far advanced. Oat threshing has begun and the yield is quite good. Farmers are now making their second crop of alfalfa hay. Apples are very scarce, bringing 90c@\$1 per bushel. Other fruits are also scarce, although some orchards promise well for winter apples. Farmers are selling a good many cattle now on account of short pasture; prices range from \$7@8.50 per cwt. Wheat 94c; oats 40c; corn 75c; hogs \$8.50@9.25; chickens 12@14c; eggs 19c.

## Illinois.

**Perry Co., Aug. 11.**—Green corn is selling at 24@40c per dozen ears, and not plentiful at that. As to potatoes, the county has not raised as many as were planted for seed. About all the ground that can be prepared for wheat is to cut corn off and sow the corn ground. Only about one inch of rain has fallen since April 7, (only small showers which soon dry up). The farmers are selling off their stock as they have no feed or pasture. Fruit is small and scarce. Apples and peaches \$1@1.25 per bushel; wheat 75c; corn 85c (but no corn to sell); butter 25c; eggs 19c; tomatoes 10c a pound, whereas in most years they are about 40c per bushel in August.

## Wisconsin.

**Waukesha Co., Aug. 10.**—A fine rain today, the first in two weeks; corn was suffering, also late potatoes. Corn

(Continued on page 151).

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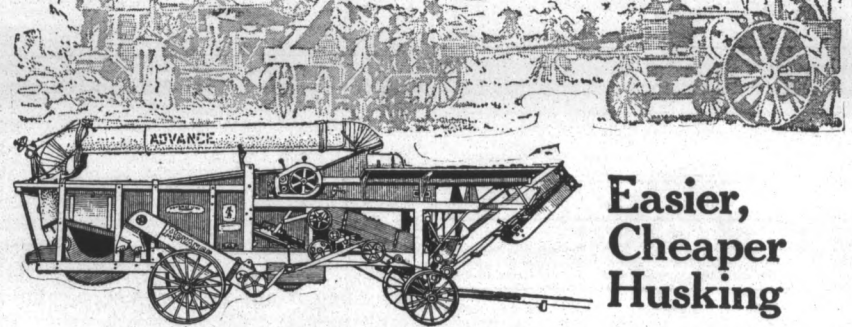
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**PLYMOUTH** Rock cockerels 5 to 11 lbs., according to age, hens 5 to 8 lbs., 15 eggs \$1. Mammoth Bronze Tom Turkeys 8 to 35 lbs., according to age. Price \$8 to \$25. 10 eggs \$3. **A. E. ORAMTON, Vassar, Mich.**

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**LILLIE FARMSTEAD POULTRY** B. P. Rocks, B. I. Reds, and B. O. W. Leghorn eggs for sale. 15 for \$1.25; 25 for \$1.50; 50 for \$2.50. **COLON C. LILLIE, Coopersville, Mich.**

**SILVER, White and Golden Wyandottes.** Eggs from Whites \$1.50 per 15, \$2.50 per 30. Silvers & Golden at catalog prices. **Browning's Wyandotte Farm, Portland, Michigan.**

**Barred Rocks**—All prize winners and breeding stock. at half price. Won 20 prizes last winter. **W. O. COFFMAN, R. No. 6, Benton Harbor, Mich.**

**DOGS.**

**Hounds** for hunting Fox, Coon, Skunk and Rabbits. **Shetland Pony Mares** Send 2c stamp. **W. E. LECKY, Holmesville, Ohio.**

**FULL BLOOD** Scotch Collie puppies for sale at Farmers Prices. **JAY J. NEPCY, R. F. D. No. 7, Lapeer, Michigan.**

**Fox and Wolf Hounds**

of the best English strain in America 40 years experience in breeding these fine hounds for my own sport. Save your pigs sheep and poultry. Send stamp for catalog **T. B. HUDSPETH, Sibley, Jackson County, Mo.**

When writing to advertisers please mention The Michigan Farmer.

**Poultry and Bees.****NEW NET WEIGHT LAW EFFECTS HONEY PRODUCERS.**

The passage of the foods and drugs act of March 3, 1913, providing for the marking of the net weight on all food containers affects the beekeepers, and everyone should make himself acquainted with the provisions of the act, that he may not find himself with the severe penalty upon himself for the selling of honey. September 3 is the date on which the law becomes effective.

Any honey on the market at that date that does not bear the net weight will be subject to penalty. The only method that will enable the packer to escape the penalty will be that he is able to prove that the honey was packed before September 3. The burden of proof rests with the packer.

Every producer, honey dealer, commission man, or beekeepers' association should relabel all honey now in their possession, to show the net weight of the honey exclusive of the frame, section, carton or glass.

**Marking the Weight.**

The average weight of a section of honey will run from 13½ to 14 ounces, including the wood, and as the section weighs near one ounce, makes the net weight 12½ or 13 ounces. The law in regards to selling by the case would effect the general practice to some extent. In selling by the numeral count, no section should weigh less than the minimum specified on it. The

which it is ordinarily examined by the purchaser is taken into consideration.

The quantity of the contents shall be marked in the terms of the largest unit contained in the package. For example: If the package contains a pound or pounds and a fraction of pounds, the contents shall be expressed in pounds and fraction thereof, or in pounds and ounces, not merely in ounces.

The quantity of the contents may be stated in terms of minimum weight or minimum count. For example: Minimum weight 14 ounces; minimum volume one gallon; not less than 13 ounces. In all cases the statement must approximate the actual contents. There will be no tolerance below the stated minimum. Beekeepers should remember in regards to this that honey will decrease in weight when left in a warm room and in the storing of it.

**Marking Extract Honey.**

In case of extracted honey in tin cans or barrels, it is permissible to mark the volumetric weight, as gallon, half gallon, quart, etc. The average buyer would prefer the net weight of the contents because a gallon of thin honey may spoil on his hands; and in any cases is not as valuable as a gallon of well ripened honey. Bottled honey must show the net weight of the honey, exclusive of the glass container.

The general tendency of the law will reduce the price of comb honey

tion of a certain weight and cost is the same. We are able to get two cents per pound more for the honey so put up.

Shiawassee Co.

N. F. GUTE.

**TWO GOOD LAYERS.**

Between last Christmas and the middle of May of this year, the two single-comb Rhode Island Red pullets shown in the picture laid 225 eggs. This pair of layers are occupying a buggy seat, and it was in this double nest that the faithful fowls did all of their excellent work. The buggy was kept in the barn all winter, and is now shown outdoors where it was run to get the picture. The hens are now setting and the vehicle will remain out of any further use until two broods are brought out.

The birds selected the place of their own choice, and they were allowed to use it for that purpose for 140 days, during which the two produced a fraction over an egg and a half a day. Another average shows that each hen laid about 113 eggs in 140 days.

With these pullets was a double-comb Rhode Island Red cockerel, and the trio was fed ordinary poultry feed of grain and grit thrown among straw. At all times they had the run of the yards and the adjoining prairies.

The chickens are owned by Merrill M'Gawn, Cook county, Illinois. **J. L. GRAFF, Illinois.**

**PLUCKING THE GEESE.**

Considerable revenue may be obtained from the feathers of geese by plucking the birds at regular intervals. There is always a market for these at from 50 to 75 cents a pound. In some markets the pure white feathers of Embdens will command a higher price than those of colored geese.

After the laying and hatching season is over the mature birds may be plucked about every six weeks. The early goslings may also be plucked during the latter part of August and again in October, provided they are not being fattened for market at this last date. Of course, the feathers should never be plucked in winter nor during the laying season, as the birds cannot produce eggs and feathers at the same time.

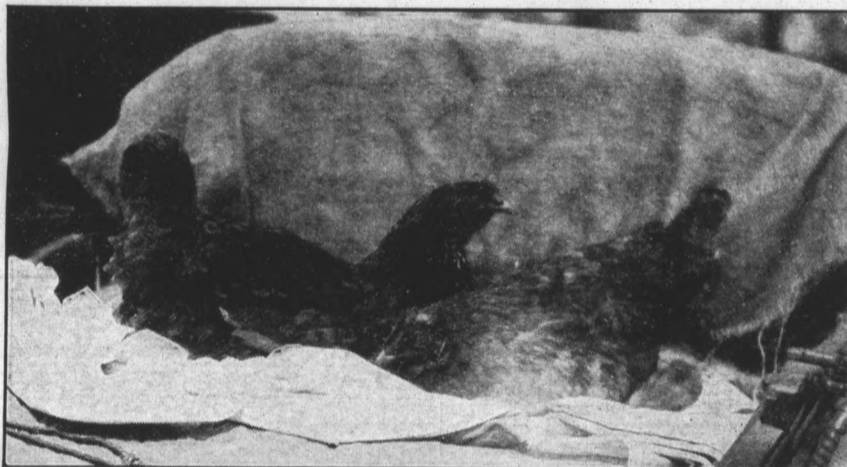
Some people never pick their geese for the reason that they regard the job as too unpleasant for both goose and picker. Yet it is not at all a cruel practice when the weathers are ripe, as no pain is then caused the bird. And if not plucked at this time, the feathers will be lost over the yards. To determine when the feathers are ripe, that is, before they reach the stage that they drop out over the yards, try a small bunch and if they pull readily and the quills are free from blood, then they are ripe enough to pluck without delay. If they are not ripe when pulled they will not be of a good grade and the work of plucking will cause pain and injury to the bird. Pull only the small feathers and keep them as clean as possible. This work will be more pleasant if the birds are not fed or watered for at least 12 hours before plucking. The work of plucking should be attended to regularly in order to obtain the greatest profit from the fowls.

A full-grown goose will yield between one-fourth and one-half pound of feathers at a picking. To cure the feathers properly, put them in muslin sacks and hang in a dry place. A little sunning will not hurt, but don't expose too long to the hot sun. The feathers are ready for use in about three months after picking.

Indiana.

W. F. PURDUE.

Sanitation is the first essential in the prevention and cure of diseases. Sanitation means cleanliness; therefore, "clean up," if the chickens are not doing well.



Two Productive Hens in their Novel Nest.

law does not say that the container cannot weigh more than the specified amount, but it does say it shall not weigh less. In selling from cartons the law can be easily complied with by having the cartons printed three weights. Where one does not sell honey in cartons he may use a rubber stamp to mark each section, using an indelible ink which is non-fading, and non-blurring, so it will not be affected by the weather or dampness. It would be best to have on hand three or more stamps, each with a different weight designated. They should read about as follows: Net weight over 13 ounces. These stamps will cost 15 cents for the regular and 20 cents for one that has a cushion rubber at the base of the rubber type. The cushion rubber stamps are the best as they will not affect the honey when stamping the section.

**Requirements of the Law.**

To sum up the law as it relates to the beekeeper, we may lay down the following rules:

The quantity of the contents of all packages of honey must be plainly and conspicuously marked on the outside of the covering or container usually delivered to the customer. The quantity so marked shall be the amount of food in the package and the statement of the quantity of the contents shall be such characters as to readily be seen and clearly legible, when the size of the package under

unless the beekeeper is careful in the manner in which he sells his honey.

A case of honey which formerly sold for \$3.00 for the 24 sections, we would average up so as to make the lean and fat combs of average uniform weight per case. Under the new law if the sections are sold by numerical count, then the producer must have each section not less than a certain minimum weight. Whatever is above the minimum the dealer is giving to his customer. To take care of this loss the producer can weigh each section and then sell the case by weight, the sum of the weights of the sections.

**A Good Plan.**

A plan which we used in the second largest city in the United States, and which worked well and gave much satisfaction, can be worked to excellent advantage in connection with this law. Each section was weighed on a small spring scale. The sections weighing 13 ounces could be put in a case by themselves, likewise the other weights. When the case is full, with the rubber stamp or label, each section could be given its net weight. The cases could then be sold to the grocer as a case of 12 or 12, 13 or 14 ounce sections, as the case may be.

Some grocers wish a section that will sell for 20 cents and some prefer one that will retail for 25 cents. With the sections all of one weight, much bother is done away with. Each sec-

## Veterinary.

CONDUCTED BY W. C. FAIR, V. S.

Advice through this department is free to our subscribers. Each communication should state history and symptoms of the case in full; also name and address of writer. Initials only will be published. Many queries are answered that apply to the same ailments. If this column is watched carefully you will probably find the desired information in a reply that has been made to someone else. When reply by mail is requested, it becomes private practice, and a fee of \$1.00 must accompany letter.

**Contagious Abortion.**—For the past two years my 18-year-old mare has foaled two months too early and, of course, both colts were dead. During the winter I fed her a teacupful of wheat once a day, and thinking perhaps this may have caused her to miscarry, I would like your advice. F. C. R., Hart, Mich.—Feeding wheat has a tendency to produce too much bowel action in some animals; however, I do not believe it had anything to do with causing your mare to abort. Give her 2 drs. of Methylene Blue at a dose in feed once a day for two weeks. Dissolve 1½ drs. of permanganate of potash in a gallon of water and wash out vagina daily for two weeks. It is a question which is not easy to answer, whether it will pay you to breed her again, or not.

**Sweeny.**—Have a colt three years old that is sweened and I would like to know if it will do any harm to work him; also, tell me what to put on shoulder. E. H., Hanover, Mich.—Clip hair off shoulder and apply one part cantharides and six parts fresh lard to shoulder three times a month. If the colt is lame, working will have a tendency to prevent recovery.

**Heifer Gives Bloody Milk.**—I have a promising heifer that is inclined to give bloody milk; she has been fresh five weeks and appears to be in perfect condition. H. K. M., Napoleon, Mich.—There is a cause for your heifer giving bloody milk and if you can remove it, she will get well. If it is over-feeding, cut down her food supply. Dissolve ¼ lb. acetate of lead in a gallon of water and apply to injured quarter three times a day.

**Abscess on Shoulder.**—Last November my mare went lame; local Vet. injected something into shoulder, opened abscess and let out one quart of pus; then shoulder healed. Later on matter formed and the shoulder has never gotten entirely well, but whenever she stops or stands still she points forefoot. W. G. A., Fremont, Mich.—The pointing of foot indicates low-down lameness. Apply cerate of cantharides to coronet and shoulder every week or ten days, and if the shoulder is in a suppurating condition, sinuse and wall of abscess should be cut out, then apply one part iodoform and nine parts boracic acid daily.

**Liver Disease.**—Lately I have lost a few chickens and the first symptoms are slight lameness, then I find the bird dead. On post mortem examination the liver is found to be enlarged to twice its natural size, of a very dark color and the abdominal cavity seems filled with a bloody water substance. These hens are not poor, just in good order, have free range, fed wheat, corn, oats, barley, and occasionally soft feed. G. W. L., Dansville, Mich.—I do not believe that you will lose many of your fowls from this liver trouble and peritonitis preceding this ascites, or abdominal dropsy. Give them 1 gr. of powdered nitrate of potash and 1 gr. of bicarbonate soda at a dose in feed or in a little water two or three times a day. I do not believe that many of your flock are affected.

**Opacity of Cornea.**—I have a horse that is blind in both eyes; the eye ball is covered with a white substance. G. B., Gobleville, Mich.—It is possible that this is a case of cataract and if so nothing can be done to restore vision; however, you might try giving 1 dr. doses of potassium iodide twice a day and blow a small quantity of calomel into eyes daily. It is needless to say that a bright light always irritates an inflamed eye.

**Bruised Shoulder—Barbed Wire Cut.**—For the past two months my three-year-old colt has had a bunch on each side of shoulder high up, but does not appear to cause much soreness. I would also like to know of a good remedy for barbed wire cut. G. M. P., Bear Lake, Mich.—Dissolve ¼ lb. of sugar of lead in a gallon of water, adding a pint of tincture of arnica, then apply to swollen shoulder three times a day. Apply equal parts of powdered alum, oxide of zinc and boracic acid to wire cut twice a day.

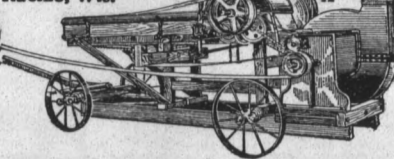
**Sore Lip.**—I have a yearling heifer that rubbed the hide off from her un-

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## ZYRO Metal Silos

preserve silage perfectly. They are substantially built along correct lines. "Zyro" Silos cannot crack or shrink and are practically trouble proof. All sizes. Write for FREE Catalog 30W. Tells the complete story of "Zyro" Silos. Ask for it To-Day.

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Box 2 Canton, Ohio

**FOX, COON AND RABBIT HOUNDS**  
Broke to gun and field. Price right. Fox and Coon hound pups \$5 each. Stamp for reply.  
H. C. LITTLE, Frederickburg, Ohio.

**FOR SALE**—Gray 2-year-old Percheron Stallion, weighing 1700 pounds, 24 months old. Price, \$500. M. A. BRAV, Okemos, Ingham Co., Mich.

**Registered Percherons, BROOD MARES, FILLIES AND YOUNG STALLIONS** at prices that will surprise you. L. C. HUNT & CO., Eaton Rapids, Michigan.

**FOR SALE**—Registered weanling Stallion Colts from our best Percheron Mares. Write, R. S. HUDSON, Michigan, Agricultural College, E. Lansing, Michigan.

**ONE HUNDRED HEAD** Of Stock Cattle Steers and Heifers ready for to sell at once. Five cars of two-year-old steers will be ready for to sell Oct. 15, 1914. J. B. GARDNER, Cadillac, Michigan. L. B. 437.

## BREEDERS' DIRECTORY.

### CATTLE.

## ABERDEEN ANGUS

Bull calves and yearlings ready for service. Sired by Louis of Viewpoint II. Closely related to five Grand Champions—Brother, Sister, Sire, Sire's Brother and Grand sire. (International Grand Champion for three years in succession. Prices \$75 up. Will meet prospective purchasers either at Somerset, Addison or Addison Junction. You are bound to get good calves from these bulls even with strongly dairy type grade cows.

GEORGE B. SMITH & CO., ADDISON AND SOMERSET, MICHIGAN.

## ABERDEEN-ANGUS

HERD FOUNDED IN 1900. Strains represented consist of Trojan Ericas, Blackbirds and Prides, only. Black Quality Ito, a bull of rare individuality and merit, heads the herd.

WOODCOTE STOCK FARM, Ionia, Mich.

MILO D. CAMPBELL. GHAS. J. ANGEVINE.

## BEACH FARM GUERNSEYS

We have for sale imported and home bred Bull Calves, guaranteed free from tuberculosis. They are fine and have had the best of care. Send for sale list, or what is better for both parties, come and see them.

CAMPBELL & ANGEVINE, Coldwater, Mich.

**Guernseys**—Famous May Rose Strain. A select herd. Tub. Tested. Several A. R. O. Cows. J. K. Blatchford, Windermere Farm, Watervliet, Mich.

We have for sale a number of pure Guernsey cows, heifers and bulls, also Berkshire hogs. VILLAGE FARM, Grass Lake, Michigan.

**HEREFORD BULLS** 2 six months old 1 18 months old. ALLEN BROS., Paw Paw, Michigan.

Two standard polled registered **HEREFORDS** Dark red and nicely marked, 11 and 15 months old. Clark & Van Wormer, Parma, Mich.

**A Chance To Get Just What You Want.** 10 A. R. O. cows, YOUR CHOICE of my entire herd. 4 service bulls, one to three years old. 5 very choice bull calves. If you are wanting Holsteins, you had better take advantage of this opportunity. L. E. CONNELL, Fayette, Ohio.

**Holstein-Friesian Breeder**—The best families of the breed represented. D. D. AITKEN, Flint, Michigan.

**HOLSTEINS & BERKSHIRES**—Stock guaranteed and priced reasonable. B. B. REAVEY, Akron, Mich.

**THE THREE BEST HOLSTEIN CATTLE** Poland China Hogs and S. O. White Leghorns. FOREST SIDE STOCK FARM. M. H. Chamberlain Jr. Prop., Romeo, Mich.

## Very Choice Holstein Bulls

At Farmers Prices. Long Beach Farms, Augusta, Kalamazoo Co., Mich.

**Holstein Cows** I have on hand 100 high grade Heifers, age 6 mo. to 2½ yrs., lots of quality and in good condition. Also a fine selection of full matured cows. Arthur Birkholz, New Buffalo, Mich.

**Registered Holstein Heifer** 7 months old, well dark markings, nice dairy form. \$160. delivered, more for your money than others give you. HOBART W. FAY, Mason, Michigan.

**HOLSTEIN FRIESIAN CATTLE.** Bulls for sale, the kind that will satisfy or money refunded. JONES & LUTZ, Oak Grove, Michigan.

**Holstein Calf**—Full brother to the triplets (see Mich. Farmer March 10, 1914 issue), cousin to Pontiac De Nijlander. Martin McLaurin, Redford, Mich.

**Holsteins**—11 High Grade Holstein heifers from Heavy Milkers. Also Registered Bull. Price for the bunch \$1000 F. O. B. J. C. BARNEY, Coldwater, Mich.

## BIGELOW'S HOLSTEIN FARMS

Breedsville, Michigan.

Breeder of high class

Registered Holsteins.

## "Top-Notch" Holsteins.

Extra large fine young bull, ¾ white, born Oct. 4, 1913. Dam has official record of 29.40 lbs. butter in 7 days, 117.50 lbs. in 30 days. Sire's dam is a 22.64 lb. 4 yr.-old daughter of a 30.59 lb. cow. McPHERSON FARMS CO., Howell, Michigan.

**FOR SALE**—At reasonable prices Registered Holstein Friesian Young Sires of world's record breeding. HATCH HERD, Ypsilanti, Michigan.

**REGISTERED HOLSTEINS**—Herd headed by Albina Bonte Butter Boy No. 93124, whose dam has semi-official yearly record. Butter 82 lbs. Milk 18622 lbs. as a 2-yr.-old. No stock for sale. W. B. Reader, Howell, Mich.

**\$100 BUYS** express paid, high record, registered eight months old HOLSTEIN BULL 26-lb. sire, King Segis and Hengerveld De Kol blood. RIVERVIEW FARM, R. No. 8, Vassar, Mich.

## ESPANORE FARM, LANSING, MICH.

## Register'd Holsteins

Bull Calves \$50 to \$200.

An absolute guarantee with each purchase. CHASE S. OSBOEN, } Owners, L. M. HATCH, ADAM E. FERGUSON, } Sup't.



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Bull calves nearly ready for service. Sired by Jacob's Fairy Emanon 107111.

SMITH & PARKER, Howell, Michigan.

**MAPLE Lane Register of Merit Jersey Herd**—Tuberculin tested by U.S. Government. Bull calves from cows in R. of M. test. Heifer calves whose dams, grand-dams, and great grand-dams are in the Register of Merit. IRVIN FOX, Allegan, Michigan.

**NOW IN SERVICE**—A Son of the \$50,000 sire King Segis Pontiac Alcatraz.

GREGORY & BORDEN, Howell, Michigan.

## HILL CREST JERSEYS.

I would sell two or three young cows. Come and see them. A herd of 20 to choose from.

S. B. WATLES, Troy, Michigan.

## Lillie Farmstead Jerseys

(Tuberculin tested. Guaranteed free from Tuberculosis.) Several good bulls and bull calves out of good dairy cows for sale. No females for sale at present. Satisfaction guaranteed.

COLON C. LILLIE, Coopersville, Mich.

## JERSEYS—YEARLING BULL READY FOR SERVICE.

Also bull calves. Brookwater Farm, R. F. D. No. 7, Ann Arbor, Mich.

## JERSEYS

—For list of stock for sale and Jersey facts write A. P. EDISON, Sec. M. J. C. C., 326 W. Bridge, Grand Rapids, Mich. If a breeder and a member of M. J. C. C. send list of stock for sale to the above.

## BUTTER BRED JERSEY BULLS

CRYSTAL SPRING STOCK FARM.

Silver Creek, Allegan County, Michigan.

## Dairy Bred Shorthorns, A Few Females For Sale.

J. B. HUMMEL, Mason, Michigan.

## FOR SALE

—2 Scotch Shorthorn bulls 10 and 24 months old.

H. B. PETERS, Burton R. R. Sta., Elsie, Michigan.

## Shorthorns

\$500 buys two cows three and four yrs., one yearling heifer for and two calves six months. A. A. PATULLO, Deckerville, Michigan.

**Shorthorns**—Bulls and females, all ages. Tell just what you want. Also P. C. Hogs, Oxford Sheep, C. W. Crup, Sec. Cent. Mich. Shorthorn Ass'n., McBrides, Mich.

## SHEEP.



**IT PAYS TO BUY PURE BRED SHEEP OF PARSONS**

"The Sheepman of the East" I sell and ship everywhere and pay express charges. I will start one man in each town. Write for club offer and descriptive price list. Oxford, Shropshire, Hampshire and Polled-Delaines.

PARSONS, Grand Ledge, Michigan R 1

## Oxforddown Yearlings and Ram Lambs

M. F. GANSSLEY, Lennon, Michigan.

## HOGS.

**Durocs & Victorias**—A few extra Sept. Boars and bunch of Gilts for 1st of April farrow. M. T. STORY, Lowell, Mich., Citizens Phone 55.

## BERKSHIRES

Choice spring boars and gilts, priced to move quick. Farmers stock. ELMHURST STOCK FARM, Almont, Mich.

## O. I. C.

March, April and May pigs; the big, growthy kind that always makes good.

LEMUEL NICHOLS, R. F. D. No. 2, Lawrence, Mich.

## Chester Whites—Reg. Bred Gilts—Orders taken for

spring pigs and Collie pups. Holstein Bulls at Bargains. FAY B. PARHAM, Bronson, Mich.

**O. I. C.**—Take orders for spring pigs. One 8 mo. fine type Jersey Bull. Price reasonable. N. H. Weber, Oakview Farm, Royal Oak, Michigan.

**O. I. C.**—Bred sows and spring pigs, large and growthy. Pairs and trios, not akin. Write your wants. GLENWOOD STOCK FARM, Zeeland, Mich.

**O. I. C.**—gilts bred for June and July farrow. Also Spring pigs. Serviceable boars all sold. I pay express. G. F. ANDREWS, Dansville, Mich.

**O. I. C's** All sold. Would be pleased to book your order for spring pigs. C. J. THOMPSON, Rockford, Michigan.

**O. I. C's**—Large boned, shipped on approval, pairs not akin, registered free. J. W. HOWELL, Elsie, Michigan.

Choicely Bred Chester Whites. Spring pigs either sex pedigree furnished. Sent C. O. D. subject to examination, for prices and breeding. Address. John Gintling, Bronson, Mich.

**O. I. C's**—Spring pigs, pairs and trios, not akin, from state fair winners. AVONDALE STOCK FARM, Wayne, Michigan.

**O. I. C.** Choice pigs, two to four mos., the long bodied kind. Serviceable boars. ALVIN V. HATT, Grass Lake, Michigan.

**O. I. C's**—Growthy spring boars. Satisfaction Guaranteed. A. R. GRAHAM, FLINT, MICHIGAN.

**O. I. C. SPRING PIGS**—Have some extra good pigs. H. W. MANN, Dansville, Michigan.

**O. I. C. Swine**—Also Holstein Bull calf sired by a 26-lb. son of Ypsilanti Sir Korndyke DeKol. Clover Leaf Stock Farm, R. No. 1, Monroe, Mich.

**O. I. C. Swine**—May I have the pleasure of receiving your order for a pair or trio, not akin, of April and May farrow. They are bred right, satisfaction guaranteed. A. J. GORDEN, R. No. 2, Dorrr, Mich.

**O. I. C's**—I have a fine lot of last OCT. GILTS, bred. Weight 500 to 850. Also last spring BOARS, Half mile west of Depot, Nashville, Michigan. OTTO B. SCHULZE.

## DUROC JERSEY BOARS

Spring Pigs and Yearlings

From Prize-Winning Stock

Special Prices for 30 Days.

Write, or better still, come.

Brookwater Farm, Ann Arbor, Mich., R. F. D. 7.

## DUROC JERSEYS

Fall gilts of the large, heavy boned type, bred for Aug. and Sept. farrow. Also spring pigs, not akin. F. J. Drott, R. 1, Monroe, Mich.

**DUROCS**—A good growthy fall pig immuned and bred for August farrow will make you money. Give me your order now for May shipment. Also fall boars ready for service. KOPE KON FARM, Kinderhook, Michigan.

Fancy bred Duroc Jerseys—Boars & Gilts of spring & summer farrow. Good individuals at reasonable prices. John McNicoll, Station A. R. 4, Bay City, Mich.

**KORN-EL STOCK FARM** now offer Duroc Jersey pigs of either sex at reasonable prices. E. R. CORNELL, Howell, Michigan.

**DUROC JERSEYS, Bred Gilts For Sale.** CAREY U. EDMONDS, Hastings, Michigan.

**DUROC JERSEYS**—Spring pigs either sex at reasonable prices. S. C. STAHLMAN, Cherry Lawn Farm, R. 2, Shepherd, Mich.

**HAMPSHIRE Swine**—Breeding stock of all ages from most popular strains. Write for breeding. Inspection invited. Floyd Myers, R. 2, Decatur, Ind.

**POLAND CHINAS**—Both Western and Home Bred. Either sex, all ages. Prices right. W. J. HAGELSHAW, Augusta, Mich.

**LARGE TYPE P. C.**—Largest in Mich. Fall pigs all sold, order a spring pig sired by the largest boar in the U. S., weight 900 lbs., 24 months old. Come and see. Expenses paid if not as represented. W. E. LIVINGSTON, Parma, Mich.

**BIG TYPE POLAND CHINAS**—Boar pigs for new homes. They are corks and immuned. WM. WAFFLE, Coldwater, Michigan.

**Poland Chinas** of the big type. March and April farrow. The kind that please our customers. A. A. WOOD & SON, Saline, Mich.

**LARGE styled Poland China Spring Pigs**, older sows bred for fall farrow. Also Shorthorn Bull calves. ROBERT NEVE, Pierson, Michigan.

**FOR SALE**—A choice bunch of March and April boar pigs, a few herd headers. Prices reasonable. Satisfaction guaranteed. R. W. MILLS, Saline, Mich.

**BUTLER'S Big Boned Prolific Poland Chinas.** Grow big, keep easy, mature early, ready for market at 6 months. Why? Because we've bred them that way for more than 20 years. We have 25 big boned sows for fall farrow. Buy one and make more money on four hogs. You can't get any better at any price. P. C. History Free. J. C. BUTLER, Portland, Mich.

**Mule Foot** Bred sows, bred gilts and boar pigs, not related, for sale. Satisfaction guaranteed. G. C. KREGLOW, Ada, Ohio

**YORKSHIRE Swine**—March & Apr. pigs ready to ship. Pairs not akin. College Princess and Cooks Bacon foundation stock. Geo. S. McMullen, Grand Ledge, Mich.

**For Sale, Yorkshires**—Gilts bred for early Sept. farrow, also boars for fall farrow. Write for prices. WATERMAN & WATERMAN, Ann Arbor, Mich.

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der lip last winter and a bunch has appeared, causing her lip to hang down. I have applied iodine twice a day for two weeks, but it does not help her much. M. W., Vanderbilt, Mich.—Remove bunch with a knife and apply one part iodoform and seven parts powdered alum twice a day.

**Cows Eat Poisonous Plants.**—Have two fine heifers that came fresh last spring, but went dry after giving milk eight weeks; two new milch cows are now showing signs of falling off. They have had good pasture, but also have access to a thicket containing blackberries, alders, sumac, bittersweet and wild grapes which they delight in browsing. Have given them stock food with no apparent benefit. F. H., Townley, Mich.—I am inclined to believe the whole trouble is caused by eating these poisonous plants and shrubs; therefore, a change in feed is all that will be necessary. Hand-rubbing the udders gently, and perhaps milking them three times a day might bring them partially back to a normal condition.

**Cow Gives Bitter Milk.**—Garget.—I have a cow that is giving milk that is very bitter and it is difficult to convert her cream into butter. I forgot to say that she has a slight attack of garget. C. L. E., Holton, Mich.—Give your cow a tablespoonful of hypo-sulphite of soda at a dose in feed three times a day and apply olive oil with gentle hand-rubbing, to udder twice a day. A change of feed will aid you in overcoming this difficulty; besides, milking utensils and the rapid cooling of milk after milking, also keeping your milk house clean and free from foul odors or air will greatly assist to overcome this trouble. I also suggest that you call the attention of some neighbor who is familiar with dairying, because his advice should be better than mine.

**Rheumatism.**—I have a calf seven weeks old that is stiff in all four legs. When down is hardly able to get up. Is fed separator milk, oil meal and eggs. I forgot to say that the joints of legs are somewhat swollen. Mrs. D. W. M., St. Charles, Mich.—Your calf suffers from joint-ill, following navel infection, giving rise to a rheumatic condition of joint. Apply one part iodine and 20 parts fresh lard to swollen joints every day or two. Give 10 grs. of sodium salicylate at a dose three times a day.

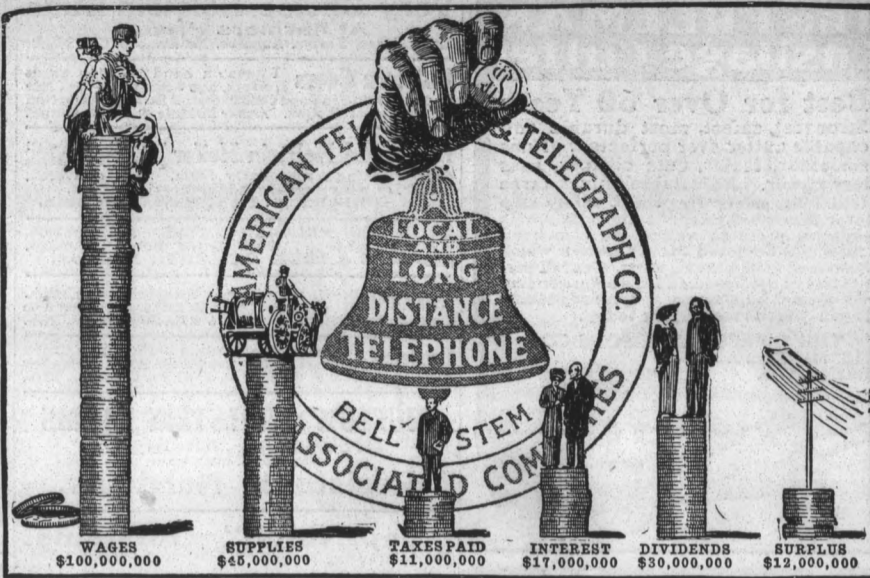
**Cow Does Not Come in Heat.**—I have a cow that fails to come in heat; she is pedigreed, therefore I am anxious to breed her. Her calf is still sucking her. R. L., Carsonville, Mich.—Give your cow 1 dr. of ground nuxvomica, a teaspoonful of powdered capsicum at a dose in feed twice or three times a day. A forced service might bring her in heat.

**Suppurating Udder.**—My cow gives stringy milk mixed with pus from one quarter of udder occasionally, and I would like to know what can be done for her. G. B., Freeport, Mich.—Apply one part iodine and 15 parts lard to diseased quarter every day or two. Wash out udder with one part carbolic acid and 50 parts water twice a day. Give her a teaspoonful of powdered nitrate of potash at a dose twice a day.

**Acute Rheumatism.**—Infected Udder.—I have several pigs eight weeks old, that are suddenly taken lame, causing intense pain, refusing to feed and die in 24 hours. The whole litter of 11 are affected. First symptom is stiffness, and when down are very dumpy and dislike to get on foot. Pigs have run on pasture with their mother and have been fed ground oats, wheat middlings and a little corn. I also have a cow that took cold last spring shortly after she freshened. One quarter of udder caked and it took me quite a while to clear out her bag. I. N. W., Clayton, Mich.—A change of food and giving your pigs  $\frac{1}{4}$  gr. of quinine and 2 grs. of bicarbonate soda, 5 grs. of ground gentian at a dose twice a day will help them. The premises should be kept clean; besides, they should have plenty of good water to drink. You had better not bother cow's udder for I believe she will be all right when she again freshens.

**Eversion of Uterus.**—Have valuable mare which foaled April 21, five days ahead of time, but everything came along all right. I bred mare the ninth day and this morning she aborted. Would you advise me to breed her again, or wait until next year? N. V. B., Benzonia, O.—You had better not breed her until November or next spring; then she will perhaps carry her colt full period.

**Muscular Soreness.**—I have a three-year-old colt that showed considerable soreness in fore quarters, some swelling in breast following a hard day's work on binder. When walking she takes very short steps and shows no soreness in left leg. A. G., Jr., Stanwood, Mich.—The muscles of shoulders and arm are sore. Bathe her well with warm water three times a day and apply spirits of camphor after bathing.



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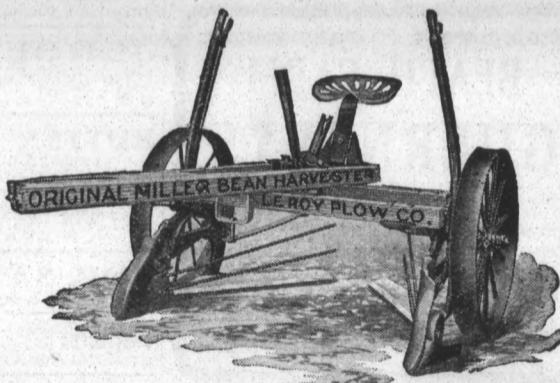
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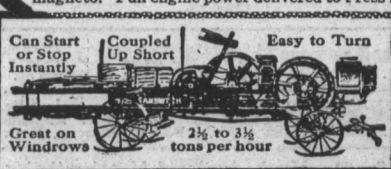
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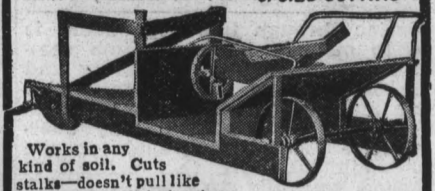


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